



Challenge

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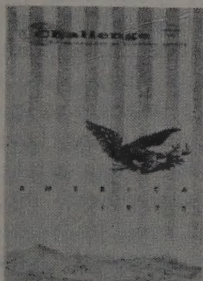
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a personal note

from the editor

*a tale of age-old poverty
and modern skyscrapers*

ONCE UPON A TIME there was a neighborly land with a people possessed by color. Nothing about this land could be drawn in a neutral shade. The hues of the sun were reflected in soul and stone alike whether one was a cosmopolitan in the city, a tourist in the mountains, a peasant on the land, or just a lonesome traveler across the arid plain. The staccato national music characterized passionate ways—high gaiety and deep sadness, respect for the old ways and a willingness to experiment with revolution. It was impossible to visit this land and not fall in love with it; one could not be indifferent to the way Nature worked there. One could not be unmoved by the spirit of the people, or fail to be warmed by their self-indulgences, their hospitality and their highly seasoned food and drink.

This was a land where the horse still meant something to men—more than a means of conveyance or of motive power. The horse was a chivalric symbol handed down from an era more romanticized than romantic but still possessing great influence over contemporary habits and attitudes. Good horsemanship was a national sport and aspiration. And naturally, with every man visualizing himself as a mounted cavalier, matters of personal honor covered a lot of things, and one could never fully discount a final resort to ancient dueling weapons. So you can see that this was a lovable, exciting, intriguing land, a place where a man could be himself and not attract undue attention to his foibles; where primitive self-expression was refined into a modern art; where relaxation was as total as action could be frenzied; where, in short, to be colorful was considered to be supremely human.

But speaking strictly in practical terms, this was a tortured land. In a world where material progress was a measure of success, and in this land where material gain was not disdained, the majority of the people were almost as poor as their tribal ancestors. As if salt had been rubbed into an open wound, the national pride smarted because the country could not master the secret of economic development

to the same degree as some others not far from sight had done. And the pain was doubly sharp because the people could get at least a taste of material progress now and then. They could see that their land was not totally backward by modern standards; that they had *some* modern plants, *some* rural electrification, *some* modern structures and roads and *some* totally modern cities. This brought into sharper contrast the backwardness of the countryside, the generally low living standards of the peasants and workers, and the plight of those who were trying to act like a middle class in a land where inflation had become a persistent economic disease.

THEN ONE DAY there came into this land an impartial observer from another land. He joined the thousands of other tourists who were always present in that colorful land and was very much impressed by the beauty, excitement and charm he found. But he was also considerably troubled by the prevailing ignorance of some simple economic precepts which clouded the vision of a proud people who wanted to do better, but could not. Such ignorance of the basic facts of economic life were almost universal, to be sure, but in this land the drink of progress seemed to leave a particularly bitter after-taste of economic frustration. Wasn't it obvious that material wealth was a product of incentive, to be nurtured and encouraged out of those who could produce? That money flows into those ventures where there is a chance for reward? That capital assets can breed goods, and these breed more assets for more goods—if there are rewards?

Of what use were the modern labor unions of this land, since even with their ability to milk an industry dry, all they could get out of it was the little that machinery of 1900 vintage could yield? Small wonder that capital was fleeing into the development of real estate in the big cities, where the absence of rent controls on commercial buildings made it worthwhile to invest in magnificent structures, among the most up-to-date in the whole world. Small wonder, too, that skyscrapers were being built in the capital city one hundred at a time. And this in a land where government bonds went begging at 10 per cent interest, because inflation was chronic and the investment would be rendered useless in a few years.

Because the rewards were lopsided, the development was lopsided. Couldn't they see that? Apparently not. The visitor ended his vacation, and with a heavy heart he left behind him skyscrapers and a colorful, chivalrous people still puzzled by their poverty.—H.B.



Challenge Notes

Economic growth; "look-alike" products; million-dollar mistakes

LAST MONTH the nation's economists gathered in New York to discuss what is perhaps the single most important problem of their science: economic growth and how to encourage it. After it was all over, there was wide agreement that, in spite of great advances in the field, we don't really know very much.

Why do some countries develop more rapidly than others? What social environment will best stimulate economic growth? How much of such growth is "healthy," and when is it dangerous? Economic libraries bulge with detailed studies which tell us much about what has happened in a particular country at a particular time, or what could happen in the future if thus and such conditions were met. But they do not provide us with answers that cover *every* eventuality. Even if they did, there would be new developments (new inventions, political upsets, wars, etc.) which would make the theory unworkable.

The fact of the matter is that

economic growth is too big a subject for economists—or other specialists—to handle. Obviously, such noneconomic factors as the role of political institutions, legal systems and religious beliefs (and practices) in the process of economic development must be considered. So must popular attitudes towards work, thrift and wealth itself.

People sometimes complain that economists live in an ivory tower, oblivious of the fact that the subject matter of their science is, in the final analysis, the human being and how he goes about the job of making a living. But, say these critics, Man does not live by bread alone, and you cannot study him as if he did.

Such criticism may have been justified a hundred or even fifty years ago. Today, it is no longer valid. Most of the speakers at the recent conference on economic growth emphasized the need for a more unified approach to the problem, incorporating the work of psychologists, sociologists and

other social scientists. If, today, we are still woefully ignorant, our ignorance is at least partly due to the exclusiveness of these other sciences.

"Look-alike" Products

IF YOU have ever tried to identify the make of a refrigerator, washing machine, vacuum cleaner or other appliance, you know what a difficult job that can be. Apart from the brand name (which is not always prominently displayed), there is often little to distinguish one make from another. Even advertising and marketing executives, who know the field intimately, have difficulty in identifying brands. Recently, a group of marketing executives were shown color slides of the principal makes of such nationally advertised appliances as vacuum cleaners, toasters, electric shavers, washing machines and refrigerators, and were asked to identify them. The result: only 23 per cent of the marketers' identifications were correct. Consumers, when asked to identify brands at the point of sale, did even worse; their average identification score was a scant 17 per cent.

Naturally, manufacturers are worried about this trend toward "look-alike" products. They fear that it will destroy brand loyalty. If different makes *look* alike, peo-

ple will come to believe that they *are* alike and stop discriminating among brands.

In the long run, the tendency towards "look-alike" products must be reversed in a competitive economy. Experience has shown that the consumer insists on variety and novelty and will respond to efforts which visibly satisfy that need. In a free economy, moreover, such efforts will always be forthcoming.

Million-dollar Mistakes

MISTAKES are becoming more and more expensive. Five years ago, the Navy commissioned twenty-one Demon jets at \$1,000,000 each. Last month we saw a photograph of the planes, which never got off the ground, being hauled through the streets of St. Louis on their way to a southern base for ground training use. The planes are now outmoded and the design of more powerful engines is not feasible.

What happened? A Congressional investigation of the whole mess concluded that no one was to blame, and there seems to be no good reason to question their findings. Mistakes do happen, and as technology gets more complicated they are easier to make. But that does not mean that either the taxpayer or industry can afford them.—M. K.

Economists have a

New Tool

by Herbert M. Bratter

The new flow-of-funds tables of the Federal Reserve tell where our money comes from and how we spend it

THE flow-of-funds system of national accounts—something new in the way of analytical tools for government, business and other economists—was unveiled in the October 1955 issue of the *Federal Reserve Bulletin*.

The flow-of-funds system is, in effect, a simplified accounting description of all the financial transactions occurring in the nation within a single year as reflected in the passage of funds—credit and currency—from buyer to seller, employer to employee, lender to borrower. Such accounting records, now published by the Federal Reserve Board to cover the years since 1939, and to be continued in future years, provide a clear picture of the economy in motion.

The statistics presented in the flow-of-funds tables are not in themselves new, although some refinements have been introduced.

What is new is their presentation all together on a single sheet. This enables analysts to determine readily where our money comes from and what we do with it. They are also able to study the movement of funds from any one segment of the economy to one or more of the other segments; they can study any one part against the background of the whole. Further, by examining the changing patterns of these flows over the past sixteen years, they can gain a great deal of new informa-

SUMMARY OF FLOW-OF-FUNDS ACCOUNTS FOR 1953
S—Source of Funds, U—Use of Funds
(Annual flows, in billions of dollars)

Transactions	Consumer		Business			
	S	U	Corporate	Non-corporate	Farm	
	S	U	S	U	S	U
Nonfinancial						
A Payroll.....	165.5	2.7	118.7	30.0	2.4	
B Receipts from and payments on investment.....	50.4	16.3	9.7	30.0	1.1	13.0
C Insurance and grants.....	21.9	22.7	1.3	12.2	1.0	4.0
D Taxes and tax refunds.....	11.0	40.0	3.3	36.5	6.8	1.1
E Capital acquisitions.....	17.0	63.8	36.7	1.3	6.0	2.2
F Net change in inventories.....	3.0	4.0	2.0	1.0	1.0	4.4
G New fixed capital.....	22.0	24.4	2.7	2.3	4.0	
H Purchases and sales of other goods and services.....	135.4	185.2	341.8	165.8	130.2	10.6
J Total.....	303.4	301.8	599.6	588.3	215.9	215.9
Financial						
K Currency and deposits.....	4.4	3.3	1.1	4.4		
L Federal obligations.....	3.3	3.3				
M Mortgages.....	0.2	0.2				

tion about such economic interrelationships as the changes in production and consumption that accompany fluctuations in credit and money supply.

Under this new system, records of all money flows are subdivided, according to sources (receipts) of funds and uses (payments) of funds, for the ten major segments into which the economy is separated: consumers, corporations, noncorporate businesses, farmers, the federal government, state and local governments, banks, life insurance companies, other institutional investors and dealings with the rest of the world.

These divisions head the vertical columns of the flow-of-funds table shown below. These columns are transected by sixteen horizontal lines of figures representing the different types of "transactions" such as payroll, interest, rents and royalties, taxes, trade credit, mortgages and bank loans. When read across, the table reveals the *participation* of each sector in each transaction. It is interesting to note that every transaction recorded in the tables is reflected in the accounts of at least four participating sectors. As an illustration, a transaction that consists of a purchase of goods for cash is entered both

as a purchase and as a sale. It is also entered as an increase in cash for one sector and a decrease in cash for another sector. Of course, where the transaction involves part credit as well as part cash, more than four entries are involved.

Now let's turn to the vertical column. Scanning the consumer section, for example, gives an industrial economist a pretty clear idea of the sources of consumers' spending money and the uses to which it is being put. Specifically, the 1953 table accounts for about 315 billion dollars of consumer income and it breaks down this sum according to the following sources: payrolls, 196 billion dollars; earnings withdrawn by proprietors of individual businesses, 43 billion; real estate transfers, 17 billion; insurance benefits, 16 billion; grants and donations, 8 billion; and the balance coming from mortgages, bank borrowings and other sources.

Now, reading across the table, it is possible to determine readily the *sources* and *uses* of funds for each transaction. For example, of the 196 billion dollars in payrolls, 119 billion came from corporate business, 30 billion from noncorporate business, 19 billion from the federal government and the rest from the other segments of the economy. The sources of loans made to consumers are cor-

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respondingly reflected in the other vertical columns of the table under banking, insurance and other financial institutions.

THE table thus explains how consumers were able to pay 238 billion dollars for goods and services in 1953, including 64 billion dollars for new and old houses and consumer durables, as well as to provide 23 billion dollars for insurance, retirement and gifts, pay 41 billion dollars in taxes and add nearly 13 billion dollars to their cash and other financial assets.

Economists can find many examples of significant financial interrelationships by a close study of these statistics. For example, mortgage debt for the economy increased 10 billion dollars during 1953. Referring to the table, it can be seen that consumer mortgage debt accounted for two-thirds of the total, and of the 10-billion-dollar increase, the banking system took 2.5 billion dollars which accounted for one-third of the total rise in bank credit that year. The table also provides the answers to many questions concerning changes in the level of income, prices, credit, etc., as reflected in changing markets for goods and services and in varying expenditures of each sector in the economy.

This flow-of-funds data may be compared with a many-faceted

crystal prism around which hover analysts from government, business, farming, labor, etc. Each analyst is interested in a specific set of relationships as seen from his own particular viewpoint; yet each is also interested in the other factors at work in the economy.

To the extent that a study of the past provides a clue to the economic future, these annual flow-of-funds tables should help industrial economists in planning for the years ahead. They should assist large retailing organizations to estimate future consumer demand and gauge potential public buying power. The tables will provide banks with important data for planning consumer credit policies and longer-term investments. Mutual fund managers, investment counselors and insurance firms, studying the statistics for a clearer focus on the economy from their special points of interest, will be better able to build projections of vital economic trends.

The economics department of an automobile manufacturer, using the summary tables presented in the October 1955 *Federal Reserve Bulletin* plus an additional 100 detailed charts now being published in book form by the Federal Reserve, should be able to construct a more accurate projection of the market situation for today and for a year ahead.

Heading the line of those who will benefit most from the flow-of-funds data are, of course, the Federal Reserve Board itself, the Treasury and other branches of the federal government.

The Washington "money managers" are vitally concerned, for instance, with the general problem of the debt position of the various segments making up the nation. The flow-of-funds tables show them who has been borrowing from whom and how much for the past sixteen years. The tables also help the Board analyze pressures on the money market and study the financial structure of the nation and the changes taking place therein. By looking at the money market in relation to the rest of the financial and economic structure, the Board can better understand the actions of the banking system and the role of insurance companies and other financial institutions.

Similarly, the Treasury can gauge better the opportunities for

public debt operations, financings and refinancings which often must be planned far ahead. It can also use the flow-of-funds statistics to understand more clearly the effects of taxation on consumers, farmers, corporations and other groups.

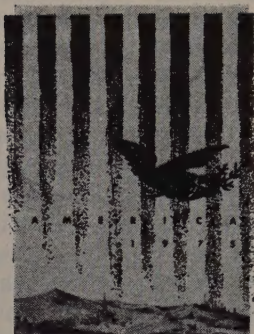
The academic economist and all students of the business cycle will examine the flow-of-funds tables for clues as to what makes the economy fluctuate. With this data, they can trace the economy's reactions to war and peace, changes of consumer credit, adjustments to business booms, etc.

Obviously, the flow-of-funds system is a valuable new tool for the analysis of a highly complex economy. Nothing like it has ever appeared on the scene before. Although it is admittedly not perfect at present, it will doubtless be improved continuously. And as the tables are issued on a more current basis, perhaps quarterly, they will become even more important to the managers and entrepreneurs of our economy. ■



Ladies' Day

ALTHOUGH the majority of husbands still bear the sole responsibility for supporting their family, about 10.7 million married women—27 per cent of the total—are in the labor force. Many are not new brides who are working until the baby arrives, but are wives who have returned to the labor market after their children grew up. Some one-third of all wives from the ages of 35 to 44 now work outside the home; the proportion is one-fourth for those in the age range from 45 to 64. The fact that two out of every three married women live in urban areas enables many to take advantage of employment opportunities in industry.



The Foreseeable Future

The weight of evidence points to rapid material progress, but it cannot be had for nothing

by Haig Babian

IT USED TO BE fashionable to look back to the "glory that was Greece and the grandeur that was Rome." Such respectful retrospection is no longer in vogue (both glory and grandeur long since having been surpassed), except in courses in the history of civilization to which college freshmen are traditionally subjected. Then Thomas More provided an additional diversion when in 1516 he published his *Utopia*. After that, Man's fancy sought refuge from reality by emigrating to a world of idle speculation about the components of perfection. We can only guess that it must have been painful to some Utopians to be reminded of the etymology of the word *Utopia*, which in Greek means nowhere. Then came the realists: the Bellamys, the Huxleys, the Orwells and the Ernsts, who alternately have showed us how pitifully limited and remark-

ably accurate our powers of prediction can be, how horrible or how wonderful the world of tomorrow promises to be.

The fashion of late has been to talk in numbers—precise numbers about population in 1975, gross national product, average income, hours of work and so on. This is as it should be, for we have more accurate statistics about the current state of affairs than ever before, and the techniques of projection are highly developed, including as they do the incalculable aid of the electronically fired computing "brains." Thus, it is commonplace today to expect exact information about the shape of things to come in the next two decades. And the experts have been exact, taking care to make allowances for every exception and deviation before announcing with great confidence that, to cite a fictitious example, the average

diet in 1975 will require a 5 per cent increase in calcium (above 1955 intake) because of the changing skeletal structure of American males and females.

Little remains to be said about 1975 that has not been said before. But it will not hurt to recapitulate. And while this author cannot offer superior information, he can claim familiarity with the latest facts and figures. If this presentation, as well as those that will follow in CHALLENGE, has any distinguishing features, they will be found in the attempt to pitch a few curves at those who have become accustomed to the straight-from-the-shoulder, down-the-line delivery of other prognosticators. And just for the sake of making things interesting, we shall *not* predict that there will be peace in the world, if there is no war.

There seems to be general agreement that by 1975 the United States of America will have a population of approximately 220 millions. This figure is probably a conservative one, tempered by the expectation that there is bound to be a leveling off in our rate of increase until 1965, by which time our "war babies" will have reached an age enabling them to break every record ever set in this country for marriages, honeymoons and crowded maternity wards. But even the period of leveling off is

not likely to bring anything like the respite that the statisticians expect on the basis of past experience. Good times are here, and good times will be made to stay, even if the future is sacrificed at the altar of inflationary prosperity. Young people rarely consider the financial aspects of marriage any more. They get married; buy furniture; finance a car; go on vacations. It's easy, because Uncle Sam will see to it that there won't be any depressions. Long engagements are unheard of these days, as are the childless years. If this development brings unbearable pressure on the national debt ceiling, at least one good thing can be said in its favor: we are constantly increasing the number of children among whom the debt might be distributed.

But too conservative or no, the estimate of 220 millions is good enough to work with. Everyone who will be 65 years old, or older, in 1975 is already with us, so we know there will be 6 million *more* in that age group twenty years hence than there are today. We cannot be as certain about how many 20 year olds, or younger, there will be, since the first of that crop are just beginning to arrive. But the number of those who are likely to become parents between now and 1975 is known. Thus, we can estimate that twen-

ty years from now there will be at least 16 million *more* persons 20 years of age or younger than there are today. However, in the all-important 20 to 65 age group, (the bulk of the 1975 labor force, which has already been born), there will *not be a sufficient increase* to maintain the present-day ratio of one worker per every 2.41 non-workers. In 1975, this ratio is likely to be 1 per every 2.53, with about 87 million job-holders compared to today's 65 million.

THUS, two groups of the three which make up the population of 1975 are already well-delineated: the 65 and older group, and the 20 to 65 age group. Unless there is a drastic revision in the birth rate schedule of the next twenty years, one which favors far fewer births than anyone would care to predict (if anything, there are going to be more), the labor force of 1975 will have to support more oldsters and youngsters, in grander style, than any other productive group has ever been called upon to do.

This naturally suggests, barring any backslide in our rate of advance in standards of living, that a considerable increase in output per man-hour will be called for. The prediction is that the call will be answered. Productivity will increase at an average

rate of 2.3 per cent per year. On this basis, by 1975 the income per man-hour will reach \$3.90. It is possible that this figure, too, is an underestimation, for there is a flurry of technological development today which can render the annual improvement factor obsolete within ten years. Nevertheless, proceeding conservatively, a work force of 87 million will produce an income of 339 million dollars every hour. During the course of a 40-hour week at an average of fifty weeks per year, the annual income comes to 678 billion dollars. The gross national product would be around 800 billion dollars. It is unlikely, however, that such an increase in the national product would be digestible; nor would the will to work so hard be present in the labor force. Far more likely is a gradual reduction in the workweek; by 1975 it will be on a 4-day, 32-hour schedule. This would, in turn, reduce national income to 543 billions, and the GNP to approximately 675 billions. The average family income in 1975 will be approximately \$8,000 per year. All these figures are given in the value of the 1956 dollar. Not bad for improvement in just twenty years.

ALL THIS presupposes, of course, that steady progress will have to be made in improving our facilities for the production of goods

and services. American businesses have invested an annual average of 18 billion dollars since 1945 to expand their plants, improve equipment and develop working capital. This represents a paltry sum compared to the amounts that must be invested in the next ten years if we are to have anything like a 675-billion-dollar GNP by 1975. Something on the order of 50 billion dollars per year by 1965 and 75 billion dollars per year by 1970 will be necessary. And these are probably underestimations.

If these figures appear formidable (last year's business investment totaled 27 billion dollars), consider what a projected GNP of 675 billion dollars represents. In 1950 the total wealth of the United States—the value of every house, farm, piece of furniture and machinery, every oil well, every railroad line and plane, the whole kit and caboodle—amounted to one trillion dollars. Therefore, in the single year of 1975 we expect to produce 67.5 per cent of what the whole country was worth in 1950. Is this possible, even though we shall be working only a 32-hour week? It is possible—if we set aside sufficient sums from current income in order to build up our capacity to satisfy future desires.

The question arises as to whether there will be enough savings to provide such increased investments. The answer is that the

old-fashioned word "savings" no longer describes the kind of money we are talking about. People will certainly be socking away *less* money in 1975 than at any other period in American history. We shall have more young people than ever before, and youngsters just don't save. We shall also have more elderly people, but the majority of them will be living on pensions and social security, funds derived from sources which do not resemble the personal kitty of our grandfathers' days. The guaranteed annual wage funds, unemployment insurance, paid pensions and health insurance plans will decrease the incentives to save. But each and every one of these funds and plans, which move the individual at least one step away from the personal process of saving, represents pooled savings on a gigantic order to be handled by professional managers and thrown into the channels of investment. This revolutionary approach to the pumping of fresh funds into the financial arteries of business has not yet been fully recognized. More than anything else, it guarantees the availability of discretionary income for constructive purposes—even though the original donors may not understand the process and not appreciate the consequences until explanations are made. No one loses. Everyone gains.

But even with the assistance of such public funds, corporate businesses in particular will have to continue to supply 65 per cent of their needs from internal sources—undistributed profits and depreciation allowances—if sufficient moneys are to be put into expansion and modernization. Management will have to buy *more* automation than anyone thought would be possible three years ago—if the goals for 1975 are to be realized. This requires a higher degree of labor-management cooperation than has ever existed before. Labor's share of the annual improvement factor, already in the majority, cannot be raised much more without jeopardizing the ability of business to finance itself into 1975 standards. This is not to suggest that labor cannot get more. It can, but only if business can get enough. It would be perfect if labor could grasp this point without any prompting from management. How far from perfect the realization will be is one thing a prognosticator does not dare to guess at. Yet, on this single point of resolving how the rewards shall be allocated rests the future and the shape of 1975.

There may be a war; then again there may not. There may be hydrogen bombs dropped; we pray not. These are the great imponderables, and the author hopes this article is not considered trivial for having set them aside from his scale of projections. The feeling in this quarter is that somehow the human race will find the faith to stumble into 1975, huffing and puffing, well scarred but still alive and looking forward to still the next twenty years to come. And when we stand on that looked-for rung on the interminable ladder of progress, undoubtedly some will look back to the early months of 1956 and consider what was accomplished in two decades. Is the GNP 675 billion dollars? Is the average income per family \$8,000 per year?

It may be that we are guessing badly today and have grossly underestimated our economic growth. What fools we shall seem in 1975, if anyone remembers. But if we have overestimated and are alive to commiserate about our domestic folly, it will be plain that we failed because we did not manage wisely. The potential for success is with us now. ■





The Changing Resources Picture

Our requirements will skyrocket, but more efficient extraction, substitutes and increased imports will assure continued economic growth

by Arnold C. Harberger

AT THE close of 1955, the United States economy was producing goods and services at the unprecedented rate of 400 billion dollars a year. In the peak predepression year of 1929, our output, valued at today's prices, was only 181 billion dollars; at the turn of the century, it was only 67 billion dollars. To permit the fantastic rise in production indicated by these figures, we have had to consume vastly increasing amounts of raw materials. Thus, by 1955 our economy was using materials (other than foods) at almost four times the 1900 rate.

As we look ahead to 1975, we can foresee our production of goods and services increasing to somewhere around 750 billion dollars per year at today's prices. Part of this increase will come as a result of the natural increase in

our population; part will come from the more intensive use of capital equipment; and another large share will come from improvements in technology.

The general outlook for economic growth and abundant prosperity is, therefore, optimistic, but many thoughtful people have expressed serious reservations. We may, they fear, have been financing our past growth out of nature's capital, and nature may in the future be much more reluctant than in the past to yield up at low cost the raw materials necessary to accommodate our continued growth. In a very real sense, the amounts of copper, oil, etc., under the surface of the earth are limited, and we annually press closer to these limits. Must the day not ultimately come when waning supplies of raw materials will provide

a bottleneck to further growth and progress?

It was to help resolve such questions that the President's Materials Policy Commission was appointed in 1951 to look into the long run materials prospects of the United States economy and of the free world. The report of the Commission, a five volume document entitled *Resources for Freedom*, appeared in 1952, and carried an almost complacent message. Our progress would not be halted, or even perceptibly slowed down, by materials shortages in the foreseeable future—as long as our policies were based on a wise appraisal of future prospects.

The reassuring report of the Commission did not come as a surprise to most professional economists. A century and a half ago, Thomas R. Malthus had persuasively argued that the standard of living of an economy was ineluctably pressed to the level of subsistence, because population tended to grow at a constant percentage per year, and thus would press ever harder on the limited sources of food. Many developments have proved Malthus wrong, but primary among them has been the advance in technology. Few people in 1900 would have predicted that by 1950 our food production would have doubled, while the number of our farmers would be cut almost in half. Yet, that

is precisely what happened, and it happened mainly because of the tremendous advances in agricultural technology.

On the minerals side, the picture is much the same as in agriculture. Although we are consuming minerals today at more than five times our 1900 rate, we are actually getting them cheaper than our grandparents did in 1900. What happened is well illustrated by the case of copper. Between 1900 and 1950, copper production in the United States tripled. In the process, the industry was forced to mine poorer and poorer grades of ore, so that by 1950 the average copper content of the ores mined was less than 40 per cent what it was at the turn of the century. Ordinarily, one would expect that there would be substantial increases in the costs of mining copper. But technological advances in copper extraction were so great that the price of copper, relative to the price level of goods and services generally, was actually cut in half during the fifty-year span since 1900.

Technology, besides working to reduce the costs of minerals extraction, has also helped in other ways. Tin has been practically

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eliminated from its former place in the making of collapsible tubes and foil, because other, cheaper metals have been substituted. In spite of the dramatic fall in the relative price of copper, it has been found, since the war, that electricity can be more cheaply transmitted over long distances through aluminum transmission lines.

The possibility of similar substitutions elsewhere is one of the reasons for the optimistic materials outlook for our economy. Though our supplies of natural petroleum are dwindling, it will take only a modest rise in the price of crude oil to make worthwhile the production of petroleum from oil shale, of which we have vast reserves. And even if these reserves should one day threaten to run out, a modest further rise in price would enable the production of oil from coal, of which our known reserves now add up—at the current rate of consumption—to something like a thousand years' supply. Though our deposits of high-grade iron ore are running out, a rise of no more than 20 per cent in steel prices would make possible the production of steel from our vast supplies of lower-grade taconite ores. And these suggested increases in prices are based on today's technology, not tomorrow's.

It is truly amazing how the

existence of a few materials in real abundance can ease pressures throughout our materials economy. Our riches of coal and shale mean that oil will not provide a bottleneck to economic progress. Oil, in turn, is used to make synthetic rubber and plastics. The former of these frees us from dependence on supplies of natural rubber, and the latter provide us with substitutes for tin containers, for copper and lead pipes, and for a host of other metal products. Aluminum, one of the most abundant of minerals, stands ready to take over nearly all the electrical uses of copper, should supplies of the latter begin to fail.

THE versatility of our cheaper and more plentiful materials provides an assurance that absolute shortages will not prevent our continued growth. Prices of individual materials are likely to reflect their relative scarcities, but it is well to recall that today our economy spends only about 3 per cent of its income on minerals, with the bulk of that expenditure going for fuels whose future abundance at low cost is not in doubt. Even if the total minerals bill of our economy in 1975 were to be as high as 6 per cent of a national income of 750 billion dollars, minerals would not constitute a serious bottleneck to economic growth.

The minerals problems of the future, then, do not really provide suitable material for headlines in the Sunday supplements. But this does not mean that problems do not exist. Our economy should strive to provide for its needs at the least cost possible, and this will entail, above all else, our turning to sources abroad for a larger share of our minerals supplies. In the last fifteen or twenty years, we have shifted from an export position to one of importing many important materials, among them petroleum, copper, lead and zinc. We did this not because it was impossible to get more of these minerals at home, but because additional supplies from within our own borders would be costlier than added supplies from abroad.

To foster domestic production from high-cost sources by tariff barriers or import quotas is rarely economic. Yet, this is precisely what we do in the case of a number of materials, including such important ones as copper and petroleum. We also provide special income-tax treatment for extractive industries under the label of percentage depletion, thus giving domestic production a hidden subsidy from the public till. These measures prevent our meeting present needs as cheaply as possible, and, by hastening the withdrawal of domestic supplies, they

also make prospective future production more difficult and expensive.

If we hope to adapt our economy smoothly to long-run changes in the materials picture, we shall have to foresee at least the broad outlines of such changes. New sources of materials take substantial time and money to develop, particularly when they are located in remote corners of the world. Likewise, it takes time to seek out and adapt cheap and abundant materials as substitutes for those which are becoming scarce and expensive.

ORDINARILY, one would expect the onset of scarcity to be signalled by a sustained rise in price, which would stimulate the search for new sources of supply as well as the development of substitutes. Indeed, something like this does occur in the materials field, but short-term price fluctuations are so violent in the case of most materials that the long-term trends are often obscured.

Long-range projections of resources demand provide a means for supplementing annual price changes as indicators of potential scarcities. Unlike short-term price changes, such projections remain undistorted by the ups-and-downs of business activity in particular years. When we look ahead to 1975, the projected output reflects

the normal forces of population growth and productivity increase, not the transitory forces which made 1954 a recession year.

A conservative projection for 1975 would be that out of a gross national product of 750 billion dollars, producers will be spending some 75 billion dollars for plant and equipment and consumers more than 25 billion dollars for new residential construction, and close to 60 billion dollars for consumer durables. In spite of an increase in air transportation that may well be fourfold, and in spite of a more than doubling of the number of trucks in use, rail transportation, concentrating on heavy freight, will nearly double.

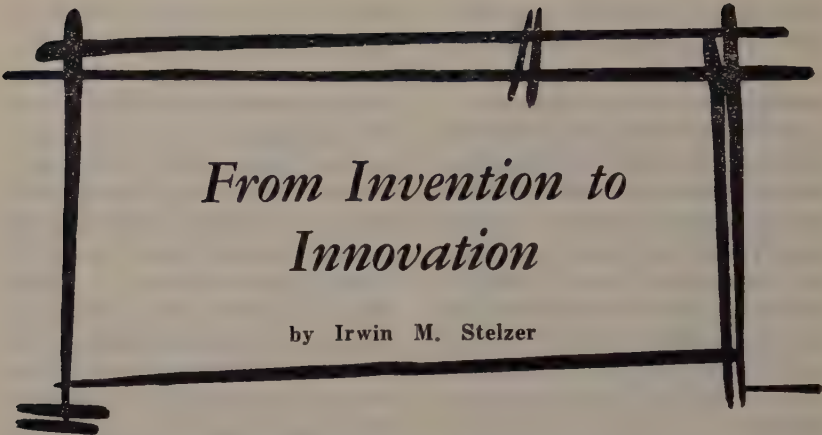
The above projections cannot be taken as precise, but they are rooted in reasonably stable relations that can be derived from our past experience. It would take drastic alterations to give us a very different picture of future materials demand from the one that these projections imply. For

abundant metals like aluminum and iron, substantial increases in demand may occur, but these can be met without serious problems. But for other metals, like copper and lead, even modest increases in demand, averaging less than 50 per cent will prove hard to meet at present prices. Here we shall have to seek sources of supply elsewhere in the free world, while at the same time minimizing the stress by developing substitutes within our productive process. For still others, like most of the additive metals that combine with iron to produce alloy steel, increases in demand to twice the current level can probably be met without substantial price rises; but this can be done only through the timely development of ore bodies in remote parts of the world. For practically all the metals, and for petroleum as well, we can hope to meet our future demand at minimum cost only by relying increasingly on supplies from the rest of the free world. ■



How Old Our Population Is

THE NATION'S school-age population stood at 28,096,000 last July, said the U. S. Bureau of the Census. This was a rise of about 6,000,000 since mid-1950. The sharpest increase occurred in the 5 to 13 age bracket, a jump of 26.8 per cent in the last five years. For the population as a whole, the next largest jump was in the over-65 group. Since mid-1950 the total population has increased by 14,116,000.



From Invention to Innovation

by Irwin M. Stelzer

The development and introduction of new industrial processes and products is daily becoming more costly and complex

SEVERAL developments, apparently unrelated, have in recent months attracted a great deal of attention to the process of innovation in modern industrial society. First, the rise of automation (described as "the use of machines to operate and control machines") has so stirred the imagination of some—and aroused the fears of others—that Congressional hearings were conducted to determine its probable socio-economic impact. Second, the shift in emphasis from simple East-West military rivalry to "competitive coexistence" has led to re-examination of the factors necessary for rapid technical advance on the economic front. Finally, the pressures of a full employment economy, with its

shortages of skilled labor and materials, have led industry to rely more and more on innovation for increased output.

The areas of agreement concerning innovation are few and far between. Even the desirability of change is often challenged, not only by those with vested interests in an old technique or product, but by thoughtful persons who are genuinely alarmed by what they regard as the subordination and replacement of man by the machine, the disruption of established communities, or the creation of increased leisure without preparation for its proper use. (The latter fear is highlighted by recent engineering forecasts of push-button factories that will permit a work schedule

in which the weekend will eventually be longer than the week.)

These objections and fears apply, however, only to innovations of a drastic and revolutionary nature, such as characterized the early Industrial Revolution. Innovation in our modern society is, fortunately, a quite different affair. A growing sense of social responsibility in the business community, combined with the existence of large investments in present facilities, tends to gradualize change and thereby minimize the social and economic dislocations inherent in innovation.

This minimization of dislocation is but one of many characteristics of the changing nature of change. Another major development, as Professor Alfred E. Kahn of Cornell University noted as early as 1940, is that "Technology has become so vast and so complex that the individual is more than ever dwarfed in relation to it." The day in which Yankee ingenuity, turned loose in a tool shop, could produce significant advances is past; future progress is more likely to be the result of cooperative efforts in an expensive laboratory staffed with specialists versed in electronics, aerodynamics, chemistry and nuclear physics.

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ics. Thus, *The New York Times* recently mourned the fact that "Yankee ingenuity has gradually softened and wilted away," to be replaced by corporate invention "which starts with a motivating purpose and ends with a public relations campaign and a delivered price."

This growing complexity of industrial research and development requires a greater financial outlay, not only because of the increased brainpower and material resources which it demands, but also because the investment must be on a scale sufficient to allow successes and the inevitable failures to average out. The president of E. I. du Pont de Nemours, Inc., for example, estimates that not more than one in twenty of his firm's research investigations "ever rings the cash register," and that not more than one out of five research dollars pays off.

CONSEQUENTLY, research has increasingly become the area in which the large corporation has made its mark. The cotton textile industry provides a perfect example of this development. Of the 738 research engineers and scientists employed by the textile mill products and apparel industries in January 1952, 660 (89 per cent) were in the employ of firms with more than 1,000 employees, and 422 (57 per cent)

were with the few firms employing more than 5,000 persons each. Furthermore, in the year ending January 1952, firms with fewer than 500 employees reduced their research staffs by 14 per cent, while firms with 500 to less than 5,000 employees added to them by 3 per cent. Firms with more than 5,000 employees increased their research personnel by 5 per cent. As a result of all this research activity, the larger firms have learned to adopt air conditioning to eliminate temperature changes and thereby facilitate quality control; to install electronic controls in finishing plants; to vitilize modern materials handling equipment; and to develop new finishes and fiber blends.

The importance of big business to continued industrial research and technical progress is further highlighted by a comparison between research appropriations by those industries dominated by large firms and similar expenditures by those industries characterized by numerous, smaller firms, which more closely resemble the economist's model of pure competition. In 1951 the essentially small-scale food and textile industries allocated 0.3 and 0.9 per cent, respectively, of each sales dollar for research, compared with the 2.0 per cent average for all manufacturing. The more heavily concentrated chemi-

cal and electrical machinery industries, on the other hand, spent 2.5 and 6.4 per cent of their respective sales dollars on research.

IT SEEMS, then, that some degree of bigness is required for major research efforts. Nevertheless, it is equally important to have a constant flow of new firms working in areas that may have been overlooked or not fully explored by the large companies. Thus, Professor W. Rupert MacLaurin's recent study of the radio industry concluded that while RCA's nine-million-dollar expenditure on television experimentation between 1930 and 1939 was essential to that medium's development, it is still necessary "to have new firms arise to take risks in unexplored areas" where developments are off the beaten track.

The dominance of the research field by large corporations does, of course, raise many questions. Why should a firm which already has a large share of a market take the risks inherent in introducing a new product? Doesn't it seem more likely that a large firm with substantial investments in plant and equipment would attempt to keep important manufacturing improvements under lock and key simply because the loss from scrapping existing equipment bulks so large? In other words, might not the tend-

ency to *slow down* change become a tendency to *suppress* change? We often hear rumors of suppressed developments, such as a match that strikes 1,000 times, or of a truly ever-sharp razor. And we may recall the English movie in which Alec Guinness developed a non-creasing, self-cleaning, indestructible white suit that industry and labor wanted to suppress for fear it would ruin both markets and jobs.

The problems of suppression, however, may be more potential than real, at least in the long-run. For one thing, antitrust enforcement officials and the courts take a dim view of concerted attempts to suppress patents. Second, modern management finds technical progress an increasingly greater source of satisfaction. Witness one firm's slogan that "Progress is our most important product." Third, there is a widespread belief that long-run suppression of change is virtually impossible. Substitute products are more easily developed to fill the need left unsatisfied because of a firm's decision to sit on a new product. And process patents can more readily be "invented around." For example, Ethylene glycol (antifreeze) is made by three different processes. And acetic acid can be made from three different materials by ten different processes.

If, then, a continued process of technical change is inevitable, what are the personnel, organizational, marketing and other problems which the innovating firm must face?

THE marketing problems connected with continued technological advance are obvious. Larger investments in expensive, continuous-process equipment will make it less likely that fluctuations in demand will be met by changes in the level of output. Instead, the economics of higher and higher overhead will combine with the technical need for continuous operation to keep production at fairly constant levels—and as close to capacity as possible. Thus, the burden of any decline in demand will fall squarely on the marketing division of the company affected. As an example, witness the enormous promotional efforts now being made by the automobile industry as it responds to a falling off in demand.

The implications for public relations departments are also clear. The day in which management could arbitrarily introduce a change, letting the chips fall where they may, is—for better or worse—past. The ability of groups affected by innovations to express their dissatisfaction has increased. Workers have their unions; suppliers and dealers have

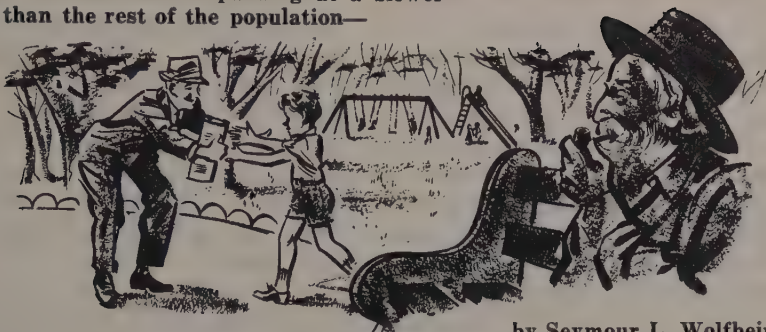
their representatives in Washington. This makes it all the more important that the reason for any change be thoroughly explained in advance, and that management's attempts to mitigate temporary hardships brought about by innovation be well publicized. To the extent that the public relations expert can do this, he will reduce resistance to change and perhaps enlist in its cause those who once opposed it.

The continuing process of technical advance will also affect the area of capital-investment decisions. Once made, they will now have to be carried through in their entirety, regardless of business conditions. As Professor Peter Drucker of New York University put it so well in speaking of automation, "You cannot tinker with one part of the plant without also making the resulting changes in all other parts. You cannot begin building a plant without finishing it. You cannot improve one part of the process; you have to improve the entire process." Consequently, all the ramifications of every innovation decision will have to be explored more thoroughly than ever before. Forecasting tools of great accuracy will have to be devised, and financing and accounting techniques will have to be developed to make investment less dependent on current cash income.

The introduction of increasingly complex equipment will tend to lengthen the training period for many jobs, increasing the importance of skilled labor. Naturally, this will make labor turnover more expensive, and its minimization more important. Furthermore, increased skills will mean increased earning power, and a rising demand by labor for recognition in nonmonetary forms of its financial entrance into the middle class. The labor relations man who can meet these demands with intelligence and imagination will provide his firm with a loyal, valuable work force.

These are only a few of the fields that will be affected by continued industrial innovation. That other great adjustments will have to be made there is little doubt. For change will bring with it not only internal problems of great magnitude, but increasing pressures from without in the form of intensified competition. Petroleum companies and rubber firms, for example, will continue to enter chemical markets; and auto manufacturers will branch into seemingly unrelated areas, such as air conditioning and locomotive production. Thus, innovation promises to make business life more interesting for the executive, more profitable for the employee, and more leisurely for the consumer. ■

With our labor force expanding at a slower rate than the rest of the population—



by Seymour L. Wolfbein

Do We Face a Labor Shortage?

FIFTY-FIVE MILLION children have been born in the U.S.A. since 1940. Prophetic powers are not necessary to foretell some of the effects of such an increase in our numbers. In fact, every parent and taxpayer already is quite familiar with its current effects on the schools. By the same token, labor experts estimate—and this is on the basis of people already born—that our working population will advance from a little over 65 million at present to about 90 million by 1975.

However, and this is highly significant, the work force of 1975 will represent a smaller proportion of the total population than is the case today.

If we are to determine the effects on our economy of a relatively diminishing labor force dur-

ing the next two decades, we must first realize what a dramatic reversal the current population surge represents from trends prevailing a short twenty years ago. Back in the 1930s, the birth rate fell to one of its lowest points in our history. That decline, taken together with the downward drift in birth rates following World War I, is having—and will have—nearly as much of an impact on our economic life as the big population increases of more recent years.

From 1940 to 1950, the over-all population of the United States increased by about 15 per cent; but the number of persons under 10 years of age went up by 38 per cent; and the number of persons 65 and over rose by 36 per cent. In the face of this very substantial increase in the

number of our very young and old, the number of persons in the teen-age group ten to nineteen years old, actually *declined* by 10 per cent. This, of course, was a result of the low birth rates of the 1930s. Yet, it is from this age group that the bulk of our new workers must come at present. Therefore, during the past several years, and for some time to come, new entrants into the American labor force have been and will continue to be at a comparatively low level.

As for the future, experts agree that between 1950 and 1975 we shall see an increase of more than 40 per cent in the number of persons of labor force age (14 years of age and over). The 65-years-and-over group will go up by 70 per cent, and those under 25 years of age will rise by about 70 per cent, too. However, for men and women in the prime of working life (those 25 to 44 years) the expected gain is only 17 per cent.

Moreover, we have an increasing number of young persons to support for longer periods of time, because our youth takes more time for education and training. Also, more and more older folks are retiring from the labor force, as social security and private pension plan coverage increases.

This longer range prospect raises a number of serious questions. Can we maintain or exceed

current levels of economic activity without more young workers than we have now? Will we be able to keep our high standard of living under these circumstances? Can we keep on supporting growing numbers at both ends of the age scale and still produce all the goods and services our population demands?

There aren't any simple answers to these questions. However, our own economic history provides evidence of a great flexibility in the American labor force, evidence which shows it to be very responsive to our nation's demands. In fact, the next twenty-five years promise to continue trends which have been in progress since 1900.

BACK in 1900, people 65 years and over accounted for only one out of every twenty-five in the population; by 1950 they accounted for one in twelve. The chief reason for this was the dramatic increase in life expectancy. Fifty years ago a man's retirement age was practically simultaneous with his death. Only a small proportion of the population survived to an age which we now consider conventional for retirement. By 1950, of course, this was all changed,

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and formal retirements from the working force were an established practice.

At the turn of the century, more than one out of every five boys 10 to 15 years of age were workers; by 1950 the Bureau of the Census already had stopped enumerating labor force activity for anyone under 14 because there were very few persons of such tender years working. Today, the average American male does not enter the labor force until he is eighteen, or older.

Thus, the experience of the first half of this century paralleled what we expect will happen in the years ahead: big increases in both older and younger persons; earlier exits from the labor force on the part of the old; and later entries on the part of the young. Yet, the net result of these developments has been that men today put in more years of work than did their counterparts in 1900. The answer to this seeming paradox lies in the great increase in the life span, which has enabled the individual to get more education and training while young, to retire earlier, but still to put in more years of work than his grandparent.

We can also learn another important lesson from our economic history. Between 1900 and 1950, this country doubled its gross national product per capita

—a technical way of saying that we doubled the amount of goods and services produced annually for every man, woman and child.

Now, there are only three ways a country can achieve such progress. *First*, it can increase the proportion of its population in the labor force. But, the remarkable fact is that the proportion of the population in the labor force was the same in 1950 as in 1900 (53.7 per cent in 1900; 53.6 per cent in 1950). *Second*, it can increase the number of hours worked by the labor force. But, of course, just the reverse happened between 1900 and 1950.

We can see, therefore, that we doubled our gross national product per capita through the efforts of the same proportion of our population, working many fewer hours. And we did it the *third* way—by increasing our productivity, the output per man-hour. Today, as we again stand at the threshold of major technological developments, the implications of a growing population with a proportionately smaller labor force must be tempered by the portentous developments of the atomic age.

Further, in all of our calculations we must never forget the distaff side of our population. It will be recalled that between 1900 and 1950 the proportion of the

population in the labor force remained the same, although the proportion of both older and younger persons in the labor force dropped significantly. The only reason we managed to maintain such relative stability in the labor force was that the number of women workers more than doubled in the half-century since 1900.

THE U. S. A. now has more women than men, mostly because here as in every other country women outlive men. Consequently, practically all of any extra additions to our labor supply must come from women. And, thus far, they have met the demand. During World War II, during the postwar upsurge in employment, during the Korean war and even in the last few months, they have contributed heavily to our labor market demands. Most relevant to our problem is this fact: between 1950 and the present, just when new entrants into the labor force were relatively few, the en-

trance rate for women moved up by two percentage points—a substantial rise in what is essentially a very stable figure. There is little which indicates any reversal of this trend. In fact, with continued technological advance, participation by women could conceivably be accelerated.

Thus, the American labor supply continues to be flexible. This is not to deny that we have many other important considerations to bear in mind. For example, increasing employment opportunities for women may have a harmful effect on family life. Productivity advances may cause at least temporary dislocations in employment. And there is the question whether the quality of our manpower will be up to par, even if the quantity is sufficient. However, the important fact remains that we shall continue to have a labor force which should be large enough to help us maintain, and even exceed, our present standard of living. ■



Dental Dope

PEOPLE ARE gnashing their teeth more than they used to. This was the report given at a recent meeting of the Greater New York Dental Committee. Bruxism, the dental term for teeth gnashing, usually develops from worry and nervous tension, and sometimes from vitamin deficiencies and inadequate rest. The grinding and clenching loosens the teeth and frequently leads to infection. Letting the lower jaw hang slack in repose with lips closed often helps the patient to overcome the habit.

*current trends
and outlook*

Economics in Action

*probable decreases
in consumer
spending and farm
income, plus
expected cutbacks
are some of the soft
spots in the
economy, which,
however, remains
strong, with most
major industries
anticipating
record sales*

ALTHOUGH more people than ever before are at work turning out goods and services at a record annual rate of nearly \$400 billion, some expected economic soft spots are worth looking into.

First, it is the opinion of many observers that in view of a **shortage** of skilled labor, insufficient plant capacity in many industries and a scarcity of such strategic materials as copper, lead, zinc and steel, the impressive rate of growth just experienced in the nation's most profitable year probably cannot be maintained throughout 1956.

Second, a number of economists who are predicting a gradual leveling off during 1956 expect a lower rate of consumer spending. Debt repayments, together with modest price increases, will tend to slow down last year's buying spree. Indicative of the trend toward higher prices, the Sears Roebuck new spring catalog shows price boosts averaging 2 per cent on consumer goods.

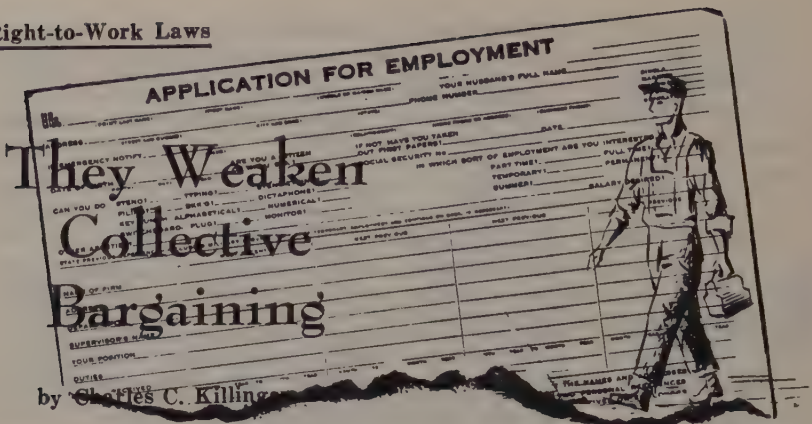
Further, the present high rate of business inventory enlargement will undoubtedly result in some production cutbacks. Currently, the inventory-to-sales ratio of American business is 1.61; and according to some experts it may well hit 1.67 by midyear, the level attained prior to the recession of late 1953-54. In the third quarter of 1955, businessmen were replenishing inventories (of raw materials, supplies and finished goods) at the annual rate of \$2.5 billion. In the final quarter, this figure jumped to \$8 billion, a rate of stockbuilding that cannot be sustained and probably will lead to inventory trimming before the year-end.

A moderation of existing boom conditions is also indicated by informed predictions of declines this year in such industries as automobiles, home construction, lumber, furniture and textiles, in addition to a further dip in farm income.

While these soft spots will likely appear, the economy is basically strong. This underlying strength is reflected in the fact that most major industries expect a boost in production and sales this year, although the rate of improvement may slacken. Aircraft, shipbuilding, electronics, paper, railroad equipment and machine tools are among the industries slated for an advance.

Even if there is a business downturn later this year, it will undoubtedly be less severe than the 1953-54 readjustment. For one reason, defense spending will not be declining as it was at that time. Moreover, the government can be relied on, particularly in an election year, to counteract any slowdown through a program of tax cuts, public works and easier credit policies—all designed to avoid cyclical fluctuations and to help achieve a steady rate of economic growth. ■

Right-to-Work Laws



Laws which make membership purely voluntary undermine union security

SO-CALLED right-to-work laws provided a hot issue in many state legislatures in the last year, just as they have on and off for the past decade. To date, a total of eighteen states (mostly in the South and Southwest) have right-to-work laws.

Typically, right-to-work laws provide that "the right to work shall not be denied or abridged on account of membership or nonmembership in any labor union, and all contracts in negation or abrogation of such a right are invalid, void, and unenforceable." Plainly, then, this is not really a "right-to-work" provision at all, since it does not guarantee employment to anyone. It simply prohibits any requirement of union membership as a condition of employment.

There are three main forms of compulsory union membership: (1) the closed shop; (2) the union shop; and (3) maintenance of membership arrangements. Under a closed-shop agreement, the employer may hire only union members; often, he must hire through the union. Under a union shop, the employer may hire freely, but within a specified time, those workers who are not members of the union must join. Under maintenance of membership, those employees who fail to resign from the union during an "escape period" at the beginning of the collective bargaining agreement, or who voluntarily join thereafter, must remain in the union for the duration of the contract. Such arrangements which make union membership a

condition of employment are called "union security agreements."

By the end of World War II, 75 per cent of the employees represented by unions were covered by union security clauses. Then in 1947 came the Taft-Hartley Act. This law reaffirms the established federal policy of encouraging union organization, but it limits union security arrangements in two important respects. First, no employee may be discharged under the union security arrangement for any reason other than failure to pay union dues. Second, Section 14 (b) of the Taft-Hartley Act makes it clear that nothing in the federal law is intended to prevent states from enforcing more stringent restrictions on union security, such as those found in the right-to-work laws.

Many court decisions, including several by the U. S. Supreme Court, have made it clear that the states may constitutionally enact right-to-work laws and other restrictions on union security; and these may be applied to *all* employers (even those covered by federal law) operating within their boundaries, *so long as* Section 14 (b) remains in the Taft-Hartley Act.

It is clear, therefore, that the right-to-work laws are a national

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issue—and an extraordinarily complex one. This issue involves all of the pros and cons of the union security question, and of legislative restrictions on union security. It also involves the touchy question of states' rights versus federal supremacy, a question as old as our form of government.

Two basic facts account for most of the controversy about union security agreements. First, such agreements tend to strengthen unions; and second, they involve a degree of interference with individual freedom.

A union security agreement strengthens a union by providing protection against raids by rival unions. It tends to compel those who are dissatisfied with union policy to work *within the union* for changes in policy instead of dropping out or, perhaps, forming a rival union. It ensures that all of the employees represented by the union in collective bargaining and grievance negotiations contribute to the financial support of the union. Finally, a union security agreement tends to give the union the status of a permanent institution in the plant or industry; it signifies the employer's complete acceptance of unionism and collective bargaining.

Today almost no one contends that collective bargaining, as such,

is an undesirable procedure. However, some people fear that unions may become *too* strong—especially with the aid of union security agreements—and that a “labor monopoly” may result. The possibility of such a development certainly merits watching. Up to now, however, the evidence seems to show that truly monopolistic practices by unions are quite rare, and that where found they are often a reaction to what appeared to be previously established employer monopolies in hiring and business practices.

MUCH has been made of the argument that compulsory union membership involves interference with the freedom of the individual. That there is such interference is undeniable. It does not automatically follow, however, that union security agreements are morally indefensible. Society does not allow anyone absolute freedom, and almost any kind of employment obviously involves many restrictions on individual freedom. Some of these restrictions even extend beyond the workplace. For example, some companies forbid their employees to take a drink on their own time. Is the requirement that an employee support his collective bargaining agency a legitimate addition to existing restrictions on individualism?

Sometimes unions do arbitrarily deny membership to workers or arbitrarily expel them from membership under union security agreements. Such action may seriously interfere with the individual's ability to earn a livelihood. Even though such cases are rare, most unions are open to criticism for failing to provide adequate safeguards against such injustice. The Taft-Hartley Act, however, gives more than ample protection against such arbitrary union policies by allowing an employee to keep his job without being a union member—if he agrees to pay dues.

LET US now consider the “states’ rights” problem. Aside from legalistic arguments, the chief argument for states’ rights from the social viewpoint has been that the states should be free to experiment with a variety of solutions to the problems confronting them. However, after many decades of state experimentation, Congress concluded that the labor relations of business firms whose activities affect interstate commerce were a matter of proper national concern. While the Taft-Hartley Act provides for a uniform national policy on the many aspects of labor relations which it regulates, it does provide for exceptions on the union security issue. It is difficult to defend this kind of exception on

legalistic grounds. The Supreme Court has repeatedly ruled that with regard to all other matters covered by Taft-Hartley, the federal authority is paramount. The effect of Section 14 (b) of Taft-Hartley is to allow a few states to enforce a policy on union security which departs widely from the basic federal policy of permitting union security agreements with safeguards. The Railway Labor Act, another piece of federal legislation, makes no such exception—and the courts have held that the state right-to-work laws are inapplicable to companies and unions covered by this law.

What have been the practical results of the right-to-work laws? Unfortunately, little reliable evidence is available. In most of the states where such laws are in effect, average wages are lower, relatively fewer plants are organized, union growth is slower and the rate at which new plants are being started is somewhat higher than in the rest of the United States. But this does not mean very much since most of these laws have been enacted in the deep South, and the rest in the industrially underdeveloped areas of the Southwest and Midwest. Thus, instead of being a

cause of low wages, slow union growth and current industrial expansion, the right-to-work laws are probably only another result of the previously existing industrial backwardness which is the basic reason for these conditions.

ONE MAY hazard the guess that the main effect of such a law is to advertise the fact that the official policy of the state is something less than friendly to unionism and collective bargaining—even though the law itself is probably not a very important obstacle to union organization and collective bargaining (except concerning union security).

Those who accept the basic premise that collective bargaining is a desirable—even necessary—institution in our highly industrialized society cannot, in my opinion, consistently defend the so-called right-to-work laws because union security arrangements contribute to stable labor relations. No doubt this helps to explain why Secretary of Labor Mitchell—a middle-of-the-road man—has declared that he is “categorically” opposed to such laws. Apparently, the legislatures in a majority of the states agree with his position. ■

Motorcycle Madness

ACCIDENTS involving motorcycles result in approximately 1,000 deaths a year in the U. S. Drivers and passengers account for 800 of the total, pedestrians the remaining 200.

They Protect Individual Freedom

by Merrylye S. Rukeyser

In an economy based on free choice, workers should not be forced into union membership in order to earn a living

THE AUTHENTIC issues behind the so-called right-to-work laws are obscured by the dogmatic cliches of controversialists who link their arguments with the loftiest spiritual generalizations. As a matter of practical consideration, the question to be resolved is, should Congress repeal Section 14 (b) of the Taft-Hartley Act? This section, by reserving to the states the right to pass appropriate legislation, allows the individual worker to decide for himself whether he wants to join a union.

The exercise of free choice is inherent in our uniquely competitive system. The consumer has the right to choose how to spend his income; the worker, within the limitations of his aptitudes, training and economic opportunities, may select work to his own liking; and, in the intellectual and spiritual areas, one may freely express ideas and worship as one pleases.

The preservation of such free choices is essential in distinguishing the American economic system from the regimentation characterizing totalitarian economies.

Yet, the campaign to discredit the right-to-work laws as "union-busting" laws has taken on fresh timeliness since the recent gathering of some fifteen million union card holders under one roof as a result of the AFL-CIO merger last December. Leaders of the merged union put high on their agenda repeal of the Taft-Hartley Act and of the right-to-work statutes in eighteen states.

Referring to this plan of action, I stated in a recent TV debate with James B. Carey, then secretary-treasurer of the CIO, that "I'm a little disturbed that those who are pushing the merger are at the same time propagandizing against reasonable regulation of the unions."

When Carey raised the question of whether the charge was that the merger would constitute a monopoly, I answered:

"I call it a would-be monopoly, not a monopoly. One of the instruments by which you want to make it a monopoly is to repeal the eighteen state laws that give the individual workman freedom of choice whether or not to join the union. Why don't you make your union so serviceable, so attractive, so beneficial to the members that they'll keep their cards voluntarily, so that you won't have to herd them in or get the benefit of state laws to make it hazardous to get out of your union?"

Early in the century when management was sufficiently in the saddle to push others around, union spokesmen clamored against the old, so-called "yellow dog" contract, which bound the worker *not* to join a union. Such a contract was an unfair device for pressuring the individual worker to turn his back on unions. Since it ran counter to the social conscience of the people, it was properly prohibited by federal and state laws. But the new hue and cry against Section 14 (b) of the Taft-Hartley Act, and the eighteen state laws, actually repre-

sents a desire for the rebirth of yellow dog contracts—in reverse.

Fortunately, all union leaders are not in accord on this matter. Our hat should be doffed to Charles Geddes, chairman of the British Trade Union Congress, who said recently: "I do not believe the trade union movement in Great Britain can live for very much longer on the basis of compulsion. . . . Must people belong to us or starve, whether they like our policies or not? . . . I believe the trade union card is an honor to be conferred, not a badge which signifies that you have got to do something whether you like it or not. We want the right to exclude people from our union if necessary, and we cannot do that on the basis of 'belong or starve'."

It was because of "abuses of compulsory membership" and "a glaring disregard for the minority members of unions," that Congress prohibited the closed shop in the Taft-Hartley Act and also made it possible for the individual states to pass right-to-work statutes designed to protect the worker against coercion by employers, union organizers or others.

The Senate Committee report said: "If trade unions were purely fraternal or social organizations, such instances (of forced membership) would not be a matter of congressional concern, but since membership in such organi-

Merryle S. Rukeyser writes a syndicated column about the economic scene for International News Service.

zations in many trades and callings is essential to earning a living, Congress cannot ignore the existence of such power."

In its 1949 decision upholding the Nebraska and North Carolina right-to-work laws, the U. S. Supreme Court pointed out that "under the state policy adopted by these laws, employers must, other considerations being equal, give equal opportunities for remunerative work to union and nonunion members without discrimination against either."

The Court then held: "The constitutional right of workers to assemble, to discuss and formulate plans for furthering their own self interest in jobs cannot be construed as a constitutional guarantee that none shall get and hold jobs except those who will join in the assembly or will agree to abide by the assembly's plans."

NEVERTHELESS, union publicists slur nonunion employees as free riders who readily accept benefits won by the organized employees. This argument was challenged by the Governor of Alabama when he signed a right-to-work law in 1953. He said, "Unquestionably the American Legion, the VFW and other service organizations have done much to provide benefits to the veterans. Yet, it is not required of any veteran that

he be forced to join any of the service organizations or required to pay dues to any of them."

As to the CIO's charge that the right-to-work laws are retarding economic progress, the National Right to Work Committee of Washington, D. C., replied with a survey of economic gains in the twelve states which have had such laws since 1947. These states include Arizona, Arkansas, Florida, Georgia, Iowa, Nebraska, North Carolina, North Dakota, South Dakota, Tennessee, Texas and Virginia.

The Committee's study found that per capita earnings in these twelve states since 1947 "increased at an average rate slightly higher than those in other states." In seven states, the reported increases in earnings were substantially higher than average.

It by no means follows that the economic gains in those states flow from these statutes. But at least it must be conceded that the dire predictions of calamity have not been fulfilled.

HAVING answered some of the unions' major objections, let us examine whether these laws have supported "union busting" as the critics charge.

Although little scholarly effort has thus far been made to separate fact from fantasy, one independent audit has been made by

Frederic Meyers, associate professor of economics at the University of Texas. Writing in the *Industrial and Labor Relations Review* (October 1955 issue), the organ of the (New York) State School of Industrial and Labor Relations at Cornell University, Professor Meyers stated:

"Texas passed its right-to-work (or 'right-to-scab', as the labor movement would prefer) law in 1947. . . . The available evidence indicates that at least in manufacturing industry, the rate of growth in unionization in Texas has been very rapid since 1938 and has shown no significant diminution since 1947. . . . Accompanying a great growth in industrialization and in the absolute number of eligible employees, the proportion of manufacturing workers covered by collective bargaining agreements has grown from almost nothing in 1938 to about 50 per cent in 1953 . . ."

Professor Meyers' study clearly indicates that the expansion of job opportunities and of industrialization depends on economic trends and not on the effects of labor laws. Likewise, the prolonged industrial boom has made a mockery of the unscientific and biased attack on the Taft-Hartley Act as a "slave labor law," for since 1947 workingmen have made enormous strides in real wages, fringe benefits and other tangible gains.

While it would be premature to develop dogmatic conclusions from our limited experience with these laws, one thing is clear. In a dynamic, free-choice society, continued success depends on the voluntary support of sellers, buyers, union card holders and all other members of the community. The compulsory herding of men is more in keeping with the technique of dictatorship, which rests on force, instead of on the art of persuasion. ■

Spirit of '56

MILITARY POLICE at Fort Dix, New Jersey, recently received a new directive—to see to it that soldiers going on leave are warmly dressed. "Soldiers who fail to dress warmly may be returned to their company areas for adequate clothing," the G. I.s are warned. The directive followed the discovery by the post command that "too many ill-clad soldiers, shivering like poor little match girls on street corners, are giving the public a false impression on the adequacy of Army winter clothing. . . . The Army provides sufficient clothing, but it's up to the individual to dress himself. But some soldiers, overcoatless and gloveless, stand quaking with cold on civilian community street corners because they haven't bothered to equip themselves properly against the rigors of winter. Consequently, the public gets the impression that the 'Valley Forge' period has returned."

Douglas McKay

Secretary of the Interior

Conservation Means Proper "Use"



Q MR. SECRETARY, *what is the chief area of administrative responsibility of the Department of the Interior?*

A The Department of the Interior is the federal government's primary natural resources agency. It is the Department's job to protect the public interest by assuring sound conservation and wise development of our nation's water, land, mineral and energy resources. Now, to conserve is not the same as to lock up. By conservation I mean the intelligent *use* of resources so that the present generation can satisfy its needs while providing sufficient supplies for coming generations.

Q *Probably few people realize the wide scope of the Department's work. Would you tell us about some of your major activities?*

A Someone once described the functions of the Department as being as vast as all of America. This is literally true. In fact, it was a bit of a surprise to me at first to learn that territories and island possessions were also under the Department of the Interior. We have complete or partial jurisdiction over the bulk of the federal lands which comprise roughly one-fourth of the nation's area; market electric power from plants with an installed capacity of about 8 million kilowatts; provide irrigation water for more than 7 million acres of agricultural land; and see to the welfare of about 400,000 Indians.

Q *Aren't national parks under your supervision as well?*

A We administer almost 200 national parks and monuments. In addition, the Department increases the nation's minerals potential by de-

veloping and improving mining techniques; it promotes conservation of minerals resources; it safeguards and increases fish and wildlife resources; and it surveys water and minerals resources with an eye to the future. The U. S. Geological Survey, which, by the way, is the only noncontroversial bureau in the Department because it is a purely scientific set-up, provides for the geologic and topographic mapping of the nation .

Q How does the Department of the Interior interpret the line of thought that national resources belong to all the people?

A Well, it's true that resources belong to all of the people. On the other hand, the policy of the government has always been to encourage the most economical use of resources. We've irrigated desert land worth no more than three to four dollars an acre and improved it until it's now worth up to 500 dollars an acre. Under these conditions, it's more important to have the land available to private farming than to have it remain useless in the public domain. We have a project in the Columbia Valley, for example, where the Department develops about 50,000 acres of land a year. This land is made available in lots up to 160 acres to homesteaders, with preference given to veterans. If a man and woman can develop a tract of land, raise a family, pay taxes, then the land is better utilized than if it were merely left alone or, in some cases, left for grazing.

Q Land doesn't do anyone any good unless it is developed.

A That's right. It's important to realize that ordinarily natural resources aren't worth a tin dime by themselves until somebody puts up some money and somebody goes to work.

Q Has pressure for economy, Mr. Secretary, caused any conservation and development work to be neglected?

A On the contrary, the Department has added more than 400,000 acres to the National Park System while resisting developments that would have hurt the natural beauty of park areas. The Department has succeeded in obtaining from Congress appropriations for the National Park Service in the current fiscal year which are 40 per cent larger than three years ago. It has also added nearly 80,000 acres to the wildlife refuge areas and has instituted a 20-year program for soil and moisture conservation. Land classification activities have been stepped

up to insure that public lands are put to their best use. If that is neglect, I'd like to do more of it.

Q *Some people have charged that the Department of the Interior has "given away" public property to private interests. Would you comment on this?*

A While the cry of "giveaway" has been raised pretty frequently in connection with a variety of Department activities, not a single instance can be substantiated. The Department has not given away a single acre of wildlife refuges or national parks; rather, it has enlarged these areas. It has not given away power resources sites, but instead has tried to boost power development through cooperative development. Nothing has been given away.

The problem of the offshore oil deposits

Q *Does this apply as well to the government's policy in regard to offshore oil deposits?*

A It does. As soon as Congress decided, with the Supreme Court's authority to do so, just where the line should be drawn between the states' share of offshore lands and the federal government's, a lot of people hollered "giveaway" and referred to me as the "king of the giveaway." The point is that if certain property belongs to the states, it should go to them. Actually, as far as offshore oil land is concerned, only 15 per cent reverted to the states.

Q *What have you done with the 85 per cent of the offshore oil land remaining in the federal domain?*

A So far we have completed three lease sales, involving less than 10 per cent of this land, netting the Treasury 252 million dollars in bonuses and first-year rentals alone. The companies pay special bonuses to win the right to lease this land. In addition, they pay a rental of three dollars an acre. If they strike oil, gas, sulphur or other resources, the federal government receives a royalty payment of one-sixth the basic market price. Then, of course, when the companies start earning money, the government takes 50 to 90 per cent of the profits through taxes. The total Treasury income from this source will run into the billions. So, it seems to me we've got a good deal.

Q *Are there any other general benefits to the economy?*

A Yes. For example, equipment manufacturers have experienced tremendous boosts in business by the increased sales of well-producing supplies such as rigs and platforms. Some of these floating platforms, which have to withstand hurricane pressures, cost as much as 7 million dollars. This develops a lot of good business, directly and indirectly.

Q *Mr. McKay, there has been a great deal of talk about the desirability of the federal government getting into the electric power business. What is the basis for arguments that such action is desirable?*

A That is a question I'd like to ask some people. If we're going to continue to exist as a free-enterprise nation, then we've got to be careful about putting the government in business because that limits opportunities for individuals. Nevertheless, at the present time 12 per cent of the power produced in America is produced by the federal government, whereas fifty years ago it was less than 1 per cent. In some areas today, such as the TVA region for instance, there is almost 100 per cent federal power. Putting the government in business can lead to government monopoly, a type of monopoly which would be very hard to destroy once established.

Q *How does the government view the situation, then, concerning future power development?*

A The real problem is whether we shall be able to build needed power capacity and whether it's going to be paid for by the federal government or through cooperative efforts of federal, local public and private sources. Today we have an installed capacity of about 116 million kilowatts. The Office of Defense Mobilization tells us that we shall need 150 million kilowatts by 1958.

Q *What's being done now to develop new power capacity?*

A There are a wide variety of projects pending, including the Upper Colorado River Storage Project and the Priest Rapids Project in Washington, both of which are public power developments. Partnership bills for four more projects in the Northwest are pending in Congress.

Q *Is there an implication here that there is no public-versus-private power issue?*

A That's right. Let me put it this way. I believe that the people at the grass roots should develop as far as they can their own power resources, just as they develop their own sewage disposal facilities, school systems and municipal water supplies. Where certain projects are beyond the reach of the local people, then the federal government has to lend a hand. But the government should not assume the responsibility for all the electrical energy in the United States. I don't believe that the federal government should go out and tell the people what's best for them.

"Local people should decide how they want their power developed"

Q *So the government's power policy is not one of aiding private utility organizations?*

A The Department's policy is that the local people should decide how they want their power developed. If they want public ownership, or if they want private enterprise to do the job, that's their right to determine. That's their American privilege. What I want to stress now is that it's going to take the combined efforts of private, local public and federal power sources to meet the tremendous energy demands of the future.

Q *Still it seems that there are many people who don't trust the private power corporations. Why is that?*

A One major reason is that a lot of people in the Twenties lost their investments in the huge utility holding companies which had unscrupulously promoted watered stock. But today, with our strong public utilities commissions and securities regulations, such promotions are not permitted. A recurrence of such tactics runs against the grain of modern business procedures. Besides, the power companies must operate under strict controls, with relatively small profits limited to about 6 per cent on invested capital.

Q *What about the popular notion that power produced by the federal government is far cheaper than power produced by private enterprise?*

A It's not correct, because when the government goes into business,

politics enter into the situation and, historically, a public business generally employs more people than a private enterprise doing an equivalent job. Also, private power firms pay taxes into the federal treasury, while federal power plants do not. Also, it's far easier to regulate a private power industry than it is to regulate a government power industry run by some bureaucrat over whom we have little control.

Q Will public or private enterprise develop power plants that utilize nuclear fuel for the generation of electricity?

A Atomic energy is not in my department, but from the way it looks now private enterprise will have the opportunity to take advantage of nuclear techniques and, on their own initiative, develop some of the new plants. As I said before, I don't believe in a monopoly by the federal government.

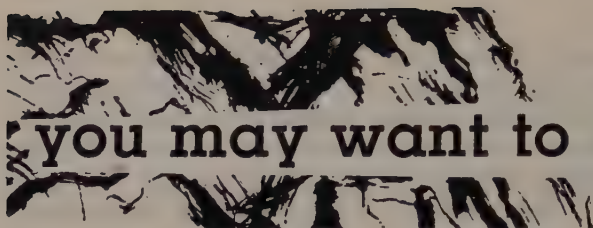
Q Is it part of your underlying philosophy, then, that if private enterprise wants to tackle the job, we ought to give it a chance?

A Yes, private enterprise or local public authority. But, on the other hand, there are exceptions. Take the problem in the upper Colorado region where water is as scarce as oil. Three and a quarter million people in five states desperately need water, and the only way they can get it is to use dams to store part of the run-off of the Colorado River and then allocate it to the various states. This is a tremendous project and far beyond the ability of the local people to handle. It'll take twenty-five to thirty years to complete and will cost a billion dollars. In this case, they have to have the federal government do the job.

Q But, by and large, would you say that if private enterprise wants to invest in developing natural resources, it should have the chance?

A It not only should have the chance but it should not have to fight the prejudice against its entering such areas of operation because of the resources that belong to the federal government. Resources are worthless unless someone develops them. If local public bodies want to do the job, that's all right. If private enterprise wants to do it, fine. But someone should do it and not wait for the federal government to get into the act.

Q Thank you, Mr. McKay. ■



you may want to know...

BEFORE you renew your insurance policies, check to be sure that coverage on your home and personal property hasn't become inadequate. Since 1945, replacement cost of a home has gone up 100%; furniture, 35%; clothing, 36%.

Seasoned Logs



NEVER store logs for a fireplace in the basement or garage. Leave them outdoors until they are to be used, for the weather seasons and conditions wood. But don't place logs directly on the ground or they will rot and provide a home for insects.



Waxing Wise

NAURAL wood paneling, especially if finished with an oil and wax treatment, should never be cleaned with an oily cloth or an oily polish. Either one makes a thick paste of dirt and dust on

the paneling and works it into the crevices of the wood. If the wood is just dusty, wipe or brush with a clean, dry cloth. If it is dirty and grimy, use a cloth dampened with turpentine. Then rewax the surface.

Ears in the Air

IF PLUGGED ears bother you when you are traveling in a plane or elevator, try this. Blow your nose gently and clear your throat. Then hold your nose and "inhale" vigorously with your mouth closed.

Finished Finish



WHEN washing your car, douse it thoroughly with water before washing to remove dust and abrasive particles. The practice of "dusting" the car off is the most destructive thing that can be done to the finish, say paint engineers. What happens is that microscopic bits of dust rupture

the thin paint film and encourage the paint to break and split.



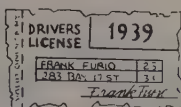
Three for the Money

"TRIOS" find favor among men shopping for new suits. The trio can be a two-piece suit with contrasting slacks or a sport coat with matching trousers and different slacks. Coming next summer: a "foursome"—sport coat, two pairs of pants and a pair of Bermuda shorts.

Tax-free Insurance

IF YOU buy an insurance policy on your life and sign it over completely to your wife as a gift, the value of the policy will not be included in your taxable estate at your death. And since you can give your wife a gift of \$6,000 each year without paying a gift tax, you can buy a sizable policy using the annual gift-tax exclusions.

Not-so-Positive Proof



IF YOU qualify for Social Security benefits but do not have a birth certificate to prove your age, you may use substitute evidence.

School, church or fraternal records, family-Bible notations, immigration or citizenship papers, data from life insurance policies, or even age statements on a driver's license (provided the license holds a 1939 or earlier date) are usually acceptable.

Advance Notice

IF YOU paid any one person a total of \$600 or more for services last year, and that payment is not subject to withholding, you have to file an "information return" with the Treasury. It is due February 28. Use Form 1099 to report payments for rents, interest, annuities, premiums, royalties, alimony or other income paid to an individual not acting as an agent.

Christmas All Year



THE POINSETTIA you received at Christmas can, with care, grow for many years. As the leaves begin to dry, cut off one-half of the growth, put it in the cellar and water it every few weeks. In June, plant it outside in partial shade. Early in September bring the poinsettia back indoors and keep it at about 65° Fahrenheit.—A.G.

'BLUE JEAN' GOLD MINE

by Irving Kaufman

American businessmen are finding it profitable to develop the fast-growing multimillion-dollar teen-age market

A SONG currently popular with the younger set characterizes the teen-age girl in these words:
... *sloppy shirt, old blue jeans,*
Dirty shoes, by all means.

Patch of blonde peroxide hair,
Juke Box Baby, ain't no square...

While a "Juke Box Baby" might see herself in just such dress during her casual hours, this song hardly describes her total wardrobe. A number of middle-class, teen-age girls recently questioned volunteered the information that they owned five-to-eight pairs of shoes, three-to-five good dresses, two-to-four coats or jackets, four-to-six sweaters, six-to-ten shirts or blouses, six-to-eight skirts,

numerous undergarments, belts, pocketbooks, scarfs, kerchiefs, and so on. The girls emphasized that these items comprised only their winter clothing and that they had "plenty of old stuff just laying around."

This clothing portrait of the teen-age girl tells of an important new economic development—one which all segments of American society, especially business, have begun to scrutinize carefully. For the United States has developed an accent on youth unparalleled in any other western nation.

There are approximately seventeen million youngsters between the ages of 13 and 17, the heart



of the teen-age market, in the United States today. For families with incomes up to \$7,500, the expenditure on clothing for children up to age 17 exceeds that for husband and wife combined. But clothes are not the only mark of teen abundance. More teen-agers than ever before have such possessions as watches, radios, bicycles, typewriters, phonographs and records. Their bedrooms are stocked with furniture, desks and accessories, mostly of their own choosing. In outfitting rumpus rooms or finished basements, the teen-ager has helped to pick the furnishings. And teen hobbies have grown from the simple goldfish bowl to the expensive tropical aquarium that is automatically heated and refilled.

Of course, the bulk of the money for these items comes from parental earning power. This, however, does not mean that the parents alone are concerned with how family funds are spent. In today's "democratic family," parental income means family income, and the teen-ager has his say about how the family resources are to be allocated.

There also exists a changed attitude today toward allowances. A recent Gallup poll indicated

Irving Kaufman is a professional social worker among teen-agers and has had extensive experience with their tastes and desires.

that while only 27 per cent of parents questioned received allowances when they were young, 85 per cent felt that their youngsters should receive an allowance.

IN ADDITION, teen-agers are becoming more affluent through their own labor. During the 1954 school year, two million youngsters worked full- or part-time; during that summer, one million more held full-time jobs. These figures exclude the many youngsters who earned money through baby-sitting, running errands for the local store, or helping out in the family business.

A study of 30,000 teen-agers throughout the country reports their average weekly spending power, combining allowances and earnings, as follows: from age 10 to 12, \$1.25; from age 13 to 15, \$2.75; from age 16 to 18, \$7.00.

This is teen money with few parental restrictions and demands made on it. Calculated on an annual basis, the multimillion-dollar discretionary teen buying power becomes apparent. This explains why American business is courting the teen-age clientele.

Advertising campaigns are often geared to younger consumers, even where the product is for adult consumption. Take, for example, this slogan: "Your son will be proud of you if you drive this car."

A distinctive class of teen-age products has been created, catering to teen ideals, needs and ability to pay. A growing list of firms are adding the words "youth" and "teen," or appropriate synonyms, as brand names. Similarly, retailers have discarded the shingles that read "Boys' Department," and "Girls' Department," and have replaced them with more sophisticated versions such as "Junior Debs," "Young Collegiates" and "Party-Goers."

Businessmen approach the teen-ager in yet another way—by exploiting in their advertising the subtle interpersonal pressures and demands of youthful groups. They know that the teen-ager, to become part of the group, must become identified with the tastes of the group, whether it be in style of clothes, attitude toward parents, or in the adulation of movie stars. If the teen-ager is to "belong," he must first learn what is currently in fashion, and then move to acquire it. Advertising campaigns that appeal to the teen-ager to do as the "crowd" does, or be the style leader of the group with subtle phrases about "being first in the crowd," are geared directly to the dynamics of these adolescent motivations.

This approach to the teen-ager has proved particularly effective, for while the teen-ager does not respond to name brands or other

typical appeals in any dependable fashion, he responds loyally to appeals based on group demands.

The teen consumer is destined to become even more important to business in the future. When you consider that in 1964 the 37 million babies born between 1945 and 1954 will be between the ages of 10 and 19, it becomes obvious that no division of American business will remain unaffected by this increment in teen-age numbers. And when these teen-agers leave the soda-pop and knee-length socks stage, they will enlarge the market for durable goods such as homes, furniture and automobiles.

When these teen-agers become tomorrow's adult consumers, they will have behind them many more years of buying experience than their parents had. This should make for wiser adult customers.

NEVERTHELESS, a question has arisen as to the effects of increased and more luxurious teen consumption on future work habits. More and more teen-agers now live through prolonged periods of economic dependency, since the time devoted to education and training has lengthened considerably in the last five decades. This development, of course, is related to the ability of a rich industrial nation like the United States to support many

nonproducers and to the fact that the economy provides greater rewards for those with specialized schooling.

But what becomes of this teen-ager who has been clothed, housed, fed and entertained for so long when he suddenly finds himself classified as an adult? The transition is often a harsh one, for his introduction to his new status has usually been ill-planned and vague. As an adult he must not only perform certain tasks and assume responsibilities in a mature manner, but he must provide, through his own labor, most of those essentials and comforts that were formerly given him.

In a recent conference with a large number of teen-agers on the subject of careers, the writer observed with interest the great intensity with which these teen-agers discussed their work futures. The participants were not so sure about what they wanted to be, but they were sure about what they wanted to possess. They thought of work as a means to consumption, and felt that the work effort could be evaluated in terms of suits, automobiles and vacation trips. They also displayed an understanding of how their

future family status and prestige would be related to the occupation they chose. Apparently these teen-agers had merely adopted the attitudes prevalent in the adult world, attitudes which imply that success can be measured by the way a man meets the economic demands made upon him by his family and friends. Thus, while seemingly the attitudes of the adult worker are parallel to those of the teen-ager, the problem arises as to how these similar viewpoints developed when the experiences of the two generations have been so vastly different? For the very fact that the teen-ager's attitudes often originated in circumstances of subsidized luxury and economic dependency, while the adults' attitudes originated in the day-by-day press of economic necessity, indicates the possibility of a qualitative difference in the future worker's approach to his job. Will the teen-ager who has grown up on a diet of unearned material satisfactions find sufficient incentive to earn these commodities through his own work and thus become a productive participant in the American economy? ■



Is there a Shortage of Risk Capital?

by Marcus Nadler

No, says a noted economist; rather there is a shortage of new stock issues because companies have found new ways to finance their needs

SINCE the end of the war the question of the adequacy of risk capital for industry has received a great deal of attention. Many people believe that a lack of such funds could retard the dynamic growth of our economy. They observe that during the past ten years the volume of bonds offered in the open market, plus the amount of private debt placements by corporations with life insurance companies and other institutional lenders, has been much larger than the amount of stock offered in the market.

From the end of 1945 to August 1955, the total volume of bonds and of private debt placements by corporations amounted to 58.2 billion dollars as compared with

17.1 billion dollars of stock offerings. This has often been cited as evidence of the inability of corporations to obtain sufficient amounts of *risk* or *equity capital*—a term applied to money invested in stocks which represent ownership (net assets) in a corporation. The shortage of such risk capital, so runs the argument, threatens to retard the pace of our industrial expansion in the years to come.

Before analyzing this evidence, it will be useful to examine the reasons why corporations in recent years have preferred to obtain new capital through the sale of bonds or through private placements rather than by issuing stock. Two principal factors have

contributed to this development.

First, corporate taxes have been very high throughout the postwar period. Since interest on loans and bonds is *tax deductible* while payment of dividends on stocks comes *after* taxes, obviously it has been advantageous for corporations to sell bonds or to borrow directly from institutional lenders rather than to sell stocks.

Second, with minor exceptions, notably in the early part of 1953 and the second half of 1955, money rates have remained low, and this has been an added inducement for corporations to sell bonds. On the other hand, equity financing has been relatively costly, particularly up to the beginning of 1954 when market yields on equities were substantially higher than those on bonds.

Private placements have become increasingly important during the postwar period. In fact, since 1945 the volume of such financing has nearly equaled the public sale of corporate bonds. Many corporations prefer to place their debt with one or a few large life insurance companies rather than go through costly registration procedures and have their bonds distributed among thousands of investors.

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Notwithstanding the fact that the total volume of equity financing has not been great in comparison with debt securities, the economy of the country has been booming for almost the entire postwar period, and capital expenditures by corporations have been exceedingly large. Spending for new plant and equipment from 1946 to 1954 totaled about 232 billion dollars, a sum probably greater than that spent during any other ten-year period in history, even after taking into account the depreciated value of the dollar. It is evident, therefore, that the comparatively small volume of equities marketed has not interfered with the growth of industry. One reason is the greatly increased role of institutional lenders as sources of corporate funds; another is the ability of corporations to finance a large part of their capital needs from undistributed profits.

Now, we must ask whether there is likely to be any shortage of *risk* capital, and if so, what impact such a development might have. Risk capital includes all equities, those of well-established corporations with long dividend records as well as those of newly established corporations whose economic outlook is as yet uncertain. On the whole, then, there is certainly no shortage of risk capital. This is evidenced by

the fact that utilities and many other types of corporations have been able to raise large amounts of money through the sale of stock. Shares of many relatively small banks and many highly speculative mining and manufacturing companies have been offered to the public during the past decade and have also found ready takers.

Rather than a shortage of equity capital during the past few years, there has been a shortage of high-grade equities. With the notable exception of General Motors, the large and long-established industrial corporations have not in general offered large amounts of new stock to their stockholders. To be sure, stock splits have taken place, but these do not require any additional payments from the public. Meanwhile, the demand for high-grade equities has increased materially, especially since pension funds have become important holders of equities. A recent study made by the Securities and Exchange Commission reveals that from the end of 1951 to the end of 1954 non-insured pension funds of all corporations other than banks increased their equity holdings from 718 million dollars to 2,085,000,000 dollars. Life insurance companies, mutual savings banks and particularly the rapidly growing mutual or open-end investment trusts

have also become important buyers of equities. So strong is the demand for stocks of well-established corporations that when a family-controlled concern such as Campbell's Soup offered its securities for the first time to the public, the shares were greatly oversubscribed and immediately sold at a premium. The same prospect is in sight for the Ford Motor Co.

A DIFFERENT situation exists with regard to the newly established companies or small and medium-size corporations. In general, small companies do not resort to the organized security markets for their capital needs, obtaining most of their external financing from banks and other local institutions. A study made recently by the Department of Commerce indicates that even newer firms desiring outside funds are able to meet most of their requirements in this way. The study reveals further that of the new companies included in the survey, 47 per cent did not seek any outside funds; 25 per cent obtained all the outside funds desired; 19 per cent obtained some funds; and only 9 per cent reported that no funds were obtained.

It is of interest to note "that loan capital was clearly the predominant form of financing desired by the firms in the survey,

accounting for 93 per cent of total funds wanted." Equity financing, the report points out, "was, however, of considerably greater importance in the unfilled demand, accounting for one-sixth of reported unfilled requirements of all firms surveyed." Moreover, although the proportion of equity capital to total funds obtained was relatively small, both for established as well as newer firms, the newer group both sought and obtained a larger share of outside financing in this form.

This indicates that small companies, even though not well-established, do obtain certain amounts of equity capital. Usually this comes from friends or relatives, or individuals who specialize in furnishing smaller and newly established firms with equity capital. It is, however, well known that smaller corporations find it much more difficult to obtain equity capital than large and well-established firms which have access to the capital market.

TO WHAT extent could this situation affect the economy of the country and its growth? In seeking an answer, the following facts should be considered. The post-war period has been marked by the rapid growth of mergers. Many small and medium-size companies have either been absorbed by larger ones or have

pooled their resources and formed larger units, which find it much easier to sell stock in the open market than smaller companies. Consequently, with the increase in the number of large organizations, the possibilities of corporations attracting considerable amounts of equity capital from individuals and institutions are heightened.

Another development which is having an important impact on equity financing is the postwar tendency of American corporations to rely to a considerable extent on internal rather than on external resources to meet their capital requirements. From 1948 to 1954, for example, nonfinancial corporations obtained 64 billion dollars from retained earnings and a similar amount from depreciation allowances. This total of 128 billion dollars for capital investment from internal sources must be compared with a total increase in indebtedness and new stock issues of 204 billion dollars during the same period. In the same period, cash dividends totaled 61 billion dollars, or less than the amount of undistributed profits. In a sense, retained earnings really constitute equity capital, since the funds belong to the stockholders, and if not used for plant modernization or expansion would have been available for distribution as dividends.

Furthermore, some medium-size firms, particularly those unable to obtain funds by selling securities in the open market, have obtained capital in recent years from companies that have been established for the purpose of developing promising businesses. These financing companies buy large blocks of shares, enabling enterprises with a favorable profits outlook to modernize their plants or to expand through the purchase of new machinery and equipment.

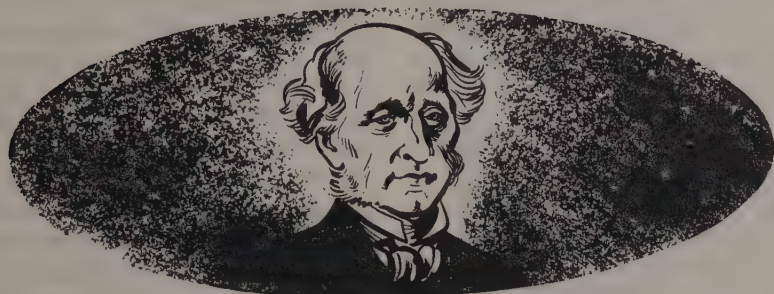
In view of the above-mentioned developments, it can be seen that our economy is not suffering from lack of equity capital. Nor is such a shortage likely to arise and interfere with the dynamic growth of the economy. In the first place, well-established corporations can finance all their capital requirements through debt or equities. Second, the merger movement, which during the past few years has been so pronounced, leads to the creation of larger

companies which have readier access to the securities markets and to private placements. Third, corporations, both large and small, are relying more and more on internal resources—namely, undivided profits and depreciation and depletion allowances—for their capital needs. Since postwar capital expenditures have been very great and their costs high, depreciation and depletion reserves will continue to increase at a rapid rate. The accelerated amortization of defense facilities will further contribute to the growth of internal resources. And finally, even small companies which have promising prospects can obtain risk capital, either from special finance organizations or from wealthy individuals looking for long-term capital gains. It goes without saying that some small companies cannot obtain as much equity capital as they desire, but this does not appear to be a problem affecting any major segment of the economy of the country. ■



Answers to True-False Quiz

- | | |
|---------------------------------------|----------------------------------|
| (1) False (<i>see pages 30, 34</i>) | (7) False (<i>see page 50</i>) |
| (2) False (<i>see page 55</i>) | (8) False (<i>see page 30</i>) |
| (3) False (<i>see page 25</i>) | (9) True (<i>see page 38</i>) |
| (4) False (<i>see page 15</i>) | (10) True (<i>see page 6</i>) |
| (5) False (<i>see page 20</i>) | (11) True (<i>see page 46</i>) |
| (6) False (<i>see page 59</i>) | (12) True (<i>see page 10</i>) |



The Summation

John Stuart Mill weaves Classical economic doctrines into a social philosophy representing the ideals of Victorian England

FOR MORE than thirty years after its publication in 1848, John Stuart Mill's *Principles of Political Economy* was the standard work in economics. This popularity was to puzzle later economists, for Mill actually added little to the economic theories of Smith, Malthus and Ricardo. His main contribution, as we shall see, was his attempt to fuse an enlightened social philosophy with prevailing economic doctrine. Although the synthesis that finally emerged was not altogether logical, it did succeed in instilling the educated classes with a new enthusiasm for the "gloomy science" of Malthus and Ricardo, whose pessimistic forecasts were not borne out by the prosperity of the times.

Mill's accomplishments as economist and social thinker were the product of a unique educational experiment conducted by his father, James Mill. The elder Mill, no mean economist in his own right, began to teach his son Greek at the age of three. By the time he was eight, young Mill had mastered his subject well enough to proceed to Latin. At the age of thirteen he was allowed to correct the proofs of his father's history of India.

His economic education began relatively late—not until he was fifteen. Father and son would go for long walks, with the father giving detailed lectures on Smith and Ricardo. The boy was then expected to return to his room and write an account of the day's

lesson; the essay was corrected and rewritten until near-perfect. When James Mill sat down to write his own *Elements of Political Economy*, he used his son's notes. Even so, his book never achieved the popularity or the influence of the younger Mill's *Principles*.

Whatever else later economists were to think of the *Principles*, the popularity it attained for a time is not inexplicable. The book was brilliantly and lucidly written; it breathed a spirit of tolerant and liberal inquiry. But it did more than that. It brought the speculations of economists down to earth by applying their ideas to the social problems of the times. This was no "ivory tower" economist oblivious to the sufferings of his fellow human beings.

And yet, in spite of these undeniable virtues, Mill was the forgotten man of economics by the end of the century. The reasons for this are important, because they illuminate the weaknesses of his work. As we shall see, Mill's attempt to balance the economic doctrines of the Classical School (which, by and large, he accepted) against his own advanced social views was unsuccessful, and he finally fell under the weight of their contradictions.

In order to understand the rise and fall of Mill as an economist,

we must first consider his social views. While Mill accepted the laissez-faire position of the Classical School, he was not dogmatic about it. In another famous book, *On Liberty*, which is still one of the classic studies in the subject, Mill contended that the sole function of government is to restrain the individual from hurting others. But he was forced to admit exceptions, particularly in the case of children who need extra protection. There was also the problem of conflicting attitudes towards good and evil; for how was the government to know when individuals were actually "harming" each other?

MOST important, there was the problem of poverty and what to do about it. Mill could not go along with the teachings of the older Classical economists that all attempts to improve the lot of the working man were doomed to failure. While he continued to doubt that unions could accomplish much, he did adopt a friendlier attitude toward them in later life. In 1869, just four years before his death, Mill repudiated his own wages fund theory, which held that wages were dependent on the size of the labor force since they constituted a fixed propor-

This is the eleventh article of a series in CHALLENGE dealing with the economic development of Man.

tion of the total capital available to the employer. Attempts by unions to raise wages were, therefore, futile. But in his "recantation," Mill said that the wage fund was not fixed after all, since the entire resources of the capitalist might be tapped as part of this fund. Unions, in other words, could help raise wages—although he was afraid that they would make unreasonable and self-defeating demands.

Interestingly enough, Mill's later views on wages and social legislation (he urged the government to shorten the working day, improve sanitary conditions, abolish child labor, etc.) were approved by most of his fellow economists. They realized that behind Mill's seemingly "radical" proposals was an essentially optimistic view of the British economic system. Both capital and labor, he contended, will share in economic efficiency. By increasing the productivity of labor it would be possible, Mill argued, to cut labor costs while raising wages.

But while expressing confidence in the future of capitalism, Mill was by no means happy about the present. "If," he wrote in 1852, "the choice were to be made between communism with all its chances, and the present state of society with all its sufferings and injustices . . . all the difficulties,

great or small, of communism would be as dust in the balance." But no choice need be made, for the institution of capitalism can be improved through social reform. "It is not," he wrote, "the subversion of the system of individual property that should be aimed at; but the improvement of it, and the participation of every member of the community in it."

SO MUCH for Mill's social views. Unfortunately, Mill found it difficult to apply them to the economic principles of Malthus and Ricardo. His attempt to distinguish between the laws of production, which are fixed and immutable like the laws of physics, and the laws of distribution, which are man-made and can be regulated by the government for the common interest, has never been accepted by most economists who insist that the distribution of wealth is closely related to the process of production. But Mill predicted that the day would come when the nation's productive capacity would reach a limit beyond which it could not go—although he had no evidence to support his prediction. Once this stage was reached, Mill argued illogically, society would be able to concentrate on the problems created by an increasing population and an unequal distribution system. Through education and a higher level of culture,

society would succeed in solving these problems.

In this way, Mill sought to synthesize the gloomy views of Malthus and Ricardo with his own optimistic social philosophy. At the time he was writing, the argument seemed plausible enough, especially to those economists who, like Mill, believed that the laws of production were indeed fixed and immutable. As long as economists agreed with Mill that there "is nothing in the laws of value which remains for the present writer or any future writer to clear up"; as long as they believed that population always tends to increase at a faster rate than the means of subsistence; as long as they believed that rents were bound to go up and that this increase was bound to increase the cost of labor which, in turn, was bound to cause a fall in profits; as long as they regarded these propositions as eternal truths, the only hope for improvement in Man's lot was to put one's faith in the capacity of increased education to moderate the inevitability of the production process.

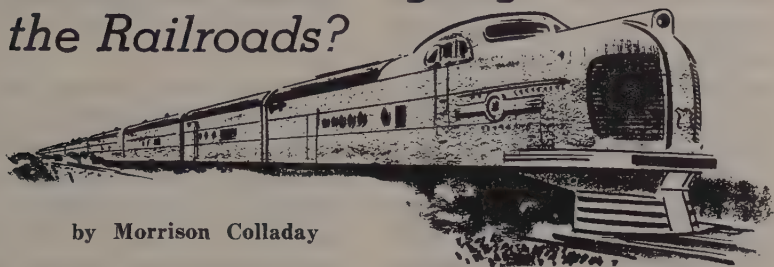
Mill's one important contribution to "pure" economic theory was in the field of international trade. Ricardo had contended that the value of a commodity in

international trade was determined by the comparative cost of *producing* it in the country of origin. Mill, on the other hand, contended that its value is determined by the comparative cost of *acquiring* it. Unlike goods produced for home consumption whose value is determined by cost of production, the value of a commodity in international trade depends on the intensity of the demand for it in the importing country. It may, therefore, be worthwhile for a country to import a commodity which is cheaper to produce at home because the comparative advantage to be derived from exporting another commodity for which there is a more intense demand in that country is even greater.

But except for this one important contribution to economic theory, Mill is not regarded as a great innovator in economics. Rather, he is today regarded as a profound social thinker who tried to adapt the doctrines of the Classical economists to his social philosophy. In this he failed, but his failure stimulated others to seek new approaches to the question of political economies. It is to these new approaches that we shall turn in succeeding chapters. ■

NEXT MONTH: Disturbed by some of the consequences of industrial growth, Utopian socialists suggest alternatives to the capitalist system

Are Controls Strangling the Railroads?



by Morrison Colladay

Railroads insist that greater freedom from restrictive regulations is necessary if they are to meet the competition of other transportation media

WHEN THE Interstate Commerce Commission was established in 1887, it bore little resemblance to today's formidable regulating agency with its extensive controls over the railroads. Originally it could only make recommendations and was without power to enforce them. In 1906, the ICC was given authority to fix rates, and in the following years Congress broadened and extended the Commission's jurisdiction so that there are now very few things a railroad can do without its permission. Clearly, this state of affairs limits the railroads' ability to compete with other transportation media not subject to such controls.

In response to this situation, the Presidential Advisory Committee on Transport Policy and Organization recently issued a

unanimous report which advocated stripping the Commission of much of its power. For example, the report advises that the Commission should no longer be permitted to fix specific rates but only to set maximum and minimum levels and that the Commission should be allowed to suspend proposed rate changes for only three months instead of seven.

A major argument for liberalizing ICC regulation of the railroads is that they pay their own way while competing forms of transportation are more or less subsidized by the taxpayer. Amplifying this point, the Presidential Advisory Committee observed: "The states have played a dominant role in the provision of an expanding and modernized highway system, aided by the federal government through a program of grants-in-

aid. The federal government has spent vast sums of the general taxpayers' funds for the improvement of rivers and harbors. More recently, it has aided materially in the development of airports, the financing and management of a nationwide system of aids to air navigation, and has advanced substantial sums of money in the form of direct financial assistance for the development of air transportation."

As a result, we now have an increasingly competitive system of transportation that has largely eliminated the monopoly position which the railroads enjoyed some thirty years ago. In spite of this change, the government has intensified its regulation of railroad transportation. The financial and operating problems which have emerged from this intensification of competition on the one hand and the restrictions of public regulation on the other have severely handicapped the railroads. Both shippers and the traveling public pay the cost of this handicap.

The Committee report also calls attention to the weak financial position of some of the major railroads and notes that they lack the means to offer better service and to apply technological advances with desirable rapidity. In part, this weakness is attributed to growing competition by those

carriers which do not have to publish rates and which can discriminate in charges and services.

FOR THIS reason, the report suggests that the railroads' competitive position be bolstered through the establishment of a system of user charges on all transportation systems that are financed by taxes, such as those used for dredging and maintenance of inland water routes. Certainly some such action seems necessary if railroads are to survive as private enterprises.

In presenting their arguments, however, the railroads are handicapped by the average American's prejudice against them. This prejudice originated in the latter half of the last century when certain antisocial practices of the railroads were dramatically exposed in such novels as *The Octopus*, by Frank Norris.

The public still regards the chief competitor of the railroads, the trucking industry, as made up of small businessmen nobly bucking the country's giant corporations. But that no longer describes the present situation. While most trucking companies were small when they started, no other business has ever expanded so

Morrison Colladay is by now well-known to readers of CHALLENGE for his many excellent contributions to this magazine in the past.

rapidly. Today, the American Trucking Associations are perhaps as powerful politically as the Association of American Railroads.

What the competition of subsidized and unregulated facilities can do to a railroad is illustrated in a letter by Herman T. Stichman, trustee of the Hudson and Manhattan Railroad Company, published not long ago in *The New York Times*.

"In 1927," writes Mr. Stichman, "we carried about 113,000,000 passengers. The Holland Tunnel opened in 1927 and the George Washington Bridge in 1931, both tax exempt. By 1933, our passenger volume dropped to about 75,000,000. The first Lincoln [Tunnel] tube opened in 1937. Our traffic dropped to about 65,000,000 in 1939.

"After a wartime spurt, the second Lincoln tube opening in 1945 again put us on the skids and the [Port of New York] Authority Bus Terminal opening in 1950 accelerated our descent to about 37,000,000 passengers and bankruptcy in 1954."

Recently, the roads have tried to combat such competition through the so-called piggy-back operation which involves the transportation of loaded truck trailers on railroad flat cars, with pick-up and delivery service by railroad-owned trucks directly to freight custom-

ers at both ends of the haul. This operation has been sanctioned by the Interstate Commerce Commission as a valid railroad service provided the rates charged by the railroads *are not lower than those charged by the trucking industry for similar service*, even though railroad costs are lower. Brice P. Disque, president of the Consumers' Protective Association, points out that "A train of one hundred gondola cars going from Buffalo to New York City requires only one locomotive engineer and four or five additional men. This train could carry at least 200 large truck trailers, which would otherwise require a minimum crew of 200 drivers. Further, the wear and tear on truck equipment is much more costly than for the train. Fuel costs would also be very much greater and road taxes are of important consequence. The approximate out-of-pocket savings in wages alone for 195 drivers would probably total \$3,900 daily."

AS THE cost of this service is so much lower than similar highway service, the railroads would be in a position to offer lower freight rates should permission be given by the Interstate Commerce Commission. Obviously, this would improve their competitive position. J. Carter Fort,

vice-president and general counsel of the Association of American Railroads, testified recently before a Congressional Committee along these lines: "When the railroads have an inherent advantage of lower costs, why should they be denied the right to publish a reduced rate . . . merely because this may have an adverse effect on a competing form of transportation?"

THAT the railroads are being regulated under archaic laws adopted years ago when they had a transportation monopoly, was acknowledged in a recent address by Richard F. Mitchell, chairman of the Interstate Commerce Commission, who stated: "Today the railroads are engaged in a highly competitive business with truck, bus, air and water carriers. . . . There is a terrific difference between a regulated industry and one not regulated. Only one-fourth of the nation's 1,400,000 trucks and only 10 per cent of the water carriers are regulated. It is hard for me to understand how

anyone can say we do not need changes in the regulatory laws."

This view was backed up by the Presidential Advisory Committee's report which concluded: "In brief, the principal emphasis of our report is that in conformity with today's availability of a number of alternate forms of transport, federal policies should be amended (1) to permit greater reliance on competitive forces in transportation pricing and (2) to assure the maintenance of a modernized and financially strong system of common carrier transportation adequate for the needs of an expanding and dynamic economy and the national security."

Bills embodying the recommendations of the Advisory Committee for reducing the ICC's power over the railroads have been introduced in both houses of Congress. The railroads are supporting them and the trucking interests are opposing them. It will be interesting to see what action is taken by Congress following committee hearings. ■



Age Requisites for Jobs

A WOMAN with experience is "too old" at: 35, for a job as stenographer, buyer or fashion magazine writer; 40, for a job as waitress, chemist or bookkeeper; 45, for a job as teacher, hostess or switchboard operator; 20, for a job as soda fountain clerk. Statistics come from the office of a New York State Senator.



Challenge Quiz

HOW WELL can you do with this true-false quiz? Test your ability to increase your knowledge through reading. Ten correct answers is Excellent; 9, Good; 8, Average. If you do the quiz *before* reading the articles, 6 correct answers is Good. Answers on page 54.

- (1) Most of the eighteen states which have right-to-work laws are in the North and Northeast.

True ☐ False ☐

- (2) John Stuart Mill successfully balanced Classical economic thought with his own advanced social theories.

True ☐ False ☐

- (3) The work force is increasing at a faster rate than the rest of the population.

True ☐ False ☐

- (4) Since 1935, we have shifted from importing to exporting copper, lead, zinc and petroleum.

True ☐ False ☐

- (5) Despite the complexity of individual research, innovation is largely a result of individual "Yankee ingenuity."

True ☐ False ☐

- (6) Railroads are a monopoly and are treated as such by the government.

True ☐ False ☐

- (7) There is a shortage of risk capital; therefore, corporations are relying upon bond issues to finance growth.

True ☐ False ☐

- (8) Right-to-work laws require that an employee join a union within a specified period of time.

True ☐ False ☐

- (9) The federal government has surrendered only a small percentage of offshore lands to the states.

True ☐ False ☐

- (10) Corporate businesses paid out more than half the \$196 billion national payroll in 1953.

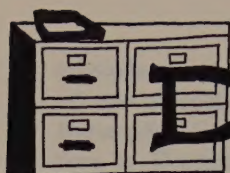
True ☐ False ☐

- (11) Less than 25% of American teen-agers worked full or part time in 1954.

True ☐ False ☐

- (12) By 1975, it may be possible to produce in one year 75% of the total material value of the U. S. in 1950.

True ☐ False ☐



Dept. of Better Mousetraps

From the World of Industry: a "silent wrapper" for chocolates sold to audiences in concert halls and theaters . . . for workers in noisy factories, an ear pad that blocks out high-frequency noises but permits the human voice to pass through . . . open store fronts without doors or windows but with curtains of air which shut out the cold and the heat . . . U Test-M, a machine which allows the customer to test his own TV tubes . . . and, to help guests in a New York hotel fall asleep, sound effects simulating noises they are familiar with back home.

* * *

Around the House: a home-assembled clock that can be tailored to harmonize with draperies or furniture . . . a fire alarm, disguised as a planter, sounds a loud alarm when temperature reaches 135° and also emits a sharp odor detectable by the deaf . . . miniature winter garden tools for your window garden includes shovel, rake, dirt jabber and pruning shears in a brass-plated stand . . . and a 3-minute timer attached to the telephone to cut down your phone bill.

* * *

Personal Business: for Pop when he is late for the 8:15, a coffee pot which is plugged into the car's cigarette lighter . . .

a pair of woolen mitts covered with a pair of water-repellent plaid mittens to keep the under pair dry . . . a portable radio built into a vanity case to mix music and make-up for milady . . . a gold-plated perfume container to clip to the lining of a purse or the inside of a pocket . . . Ling-whist, a card game which helps you learn French or Spanish as you play—each card has a letter of the alphabet of the language, phonetic pronunciation and point value . . . and a left-handed scissors with the cutting edge on the other side.

* * *

The Animal World: a big, soft terrycloth towel with a doggie print to wrap your canine in luxury as he steps from his bath . . . and a tranquilizing drug to help neurotic dogs return to their normal personalities.

* * *

Kitchen Kuties: an anti-tarnish spray for silverware that can be removed easily with soap and water . . . a flexible connecting pipe for the gas range to free the range for moving and simple cleaning . . . a dial-temp control built in each electric range to permit the cook to dial and maintain an exact temperature . . . and a radiant-heat glass tray which heats in 3 minutes, does not cook foods but keeps them hot. ■

